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(FILE 'HOME' ENTERED AT 11:45:25 ON 10 APR 2002)

FILE 'REGISTRY' ENTERED AT 11:46:06 ON 10 APR 2002

L1 6295 S 2867-47-2/CRN  
L2 10307 S 96-33-3/CRN  
L3 201 S L1 AND L2  
L4 59 S L3 NOT 4<NC

FILE 'HCAPLUS' ENTERED AT 11:48:04 ON 10 APR 2002

L5 QUE 46/SC, SX  
L6 5 S L4 AND L5  
L7 113 S L4

FILE 'REGISTRY' ENTERED AT 11:48:43 ON 10 APR 2002

L8 1 S STYRENE/CN  
L9 60800 S 100-42-5/CRN  
L10 1441 S L9 AND L1  
L11 320 S L10 NOT 4<NC

FILE 'HCAPLUS' ENTERED AT 11:50:52 ON 10 APR 2002

L12 873 S L11

FILE 'HCAPLUS' ENTERED AT 11:51:32 ON 10 APR 2002

L13 50175 S QUAT?(2A)AMMONI?  
L14 4 S L7 AND L13  
L15 873 S L11  
L16 13 S L15 AND L5  
L17 103 S L15 AND L13

FILE 'REGISTRY' ENTERED AT 11:53:39 ON 10 APR 2002  
ACTIVATE HAR5471/A

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L18 STR  
L19 SCR 2043  
L20 13043 SEA FILE=REGISTRY SSS FUL L18 AND L19  
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FILE 'HCAPLUS' ENTERED AT 11:57:44 ON 10 APR 2002

L21 13636 S L20  
L22 QUE (CLEAN? OR LAUND? OR RINS? OR DETERS? OR ABSTERS? OR EDULCO  
L23 QUE (MIX? OR BLEND? OR ADMIX? OR COMMIX? OR IMMIX? OR INTERMIX?  
L24 QUE CLEANER? OR CLEANSER? OR LAUND? OR DISHWASH? OR (L22 OR DE  
L25 86342 S CLEANER? OR CLEANSER? OR LAUND? OR DISHWASH? OR (L22 OR DETER  
L26 365592 S SURFACT? OR BIOSURFACT? OR HYDROTROP? OR DETERG? OR ABSTERG?  
L27 3 S L7 AND L25  
L28 14 S L7 AND L26  
L29 10 S L15 AND L25  
L30 149 S L15 AND L26  
L31 17 S L30 AND L13

FILE 'REGISTRY' ENTERED AT 12:03:38 ON 10 APR 2002

L32 7777 S L20 NOT 4<NC

FILE 'HCAPLUS' ENTERED AT 12:04:23 ON 10 APR 2002

L33 12079 S L32  
L34 1968 S L33 AND (L5 OR L26)  
L35 277 S L33 AND L25

24  
29  
38- Ger  
39  
55  
89

04/10/2002

SS - Polymer

Hard547

L36 1623 S L33 AND L13  
L37 220 S L34 AND L35  
L38 406 S L34 AND L36  
L39 75 S L35 AND L36  
L40 56 S L37 AND L38 AND L39  
L41 205328 S SUDS? OR FOAM? OR BUBBL?  
L42 7 S L40 AND L41  
L43 7912 S CATIONIC? (2A) (CONTAIN? OR CONT#)  
L44 11 S L43 AND L40  
L45 2 S L7 AND L43  
L46 39 S L15 AND L43  
L47 16 S L46 AND (L5 OR L26 OR L24)  
L48 972449 S ENZYM? OR PROTEAS? OR AMYLAS?  
L49 2 S L40 AND L48  
L50 1 S L7 AND L48  
L51 5 S L15 AND L48

FILE 'REGISTRY' ENTERED AT 12:12:17 ON 10 APR 2002  
L52 1 S ACRYLIC ACID/CN  
L53 47678 S 79-10-7/CRN  
L54 0 S 903-39-8/CRN  
L55 264 S 9003-39-8/CRN  
L56 1 S MALEIC ANHYDRIDE/CN  
L57 20902 S 108-31-6/CRN  
L58 1042 S L1 AND (L53 OR L57 OR L55)  
L59 273 S L58 NOT 4<NC

FILE 'HCAPLUS' ENTERED AT 12:17:29 ON 10 APR 2002  
L60 389 S L59  
L61 88 S L59 AND (L5 OR L26)  
L62 54 S L59 AND (L13 OR L43)  
L63 28 S L59 AND L25  
L64 7 S L59 AND L48  
L65 18 S L59 AND L41  
L66 15 S L65 AND (L63 OR L62 OR L61)  
L67 12 S L61 AND L62  
L68 26 S L61 AND L63  
L69 3 S L62 AND L63  
L70 3 S L67 AND L68

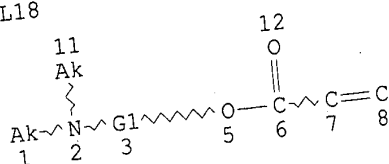
FILE 'HCAPLUS' ENTERED AT 12:38:15 ON 10 APR 2002  
L71 34 S (L6 OR L14 OR L27 OR L42 OR L45 OR L49 OR L50 OR L51 OR L64 O  
L72 7 S L29 NOT L71  
L73 17 S (L29 OR L44) NOT L71

FILE 'HCAPLUS' ENTERED AT 12:42:59 ON 10 APR 2002  
L74 60 S (L16 OR L28 OR L31 OR L47 OR L66 OR L67) NOT (L71 OR L73)  
L75 95 S L40 OR L46  
L76 54 S L75 NOT (L71 OR L73 OR L74)

=> file reg

=> d que stat L20

L18



REP G1=(1-5) CH2  
NODE ATTRIBUTES:  
CONNECT IS E1 RC AT 1  
CONNECT IS E1 RC AT 11  
DEFAULT MLEVEL IS ATOM  
GGCAT IS SAT AT 1  
GGCAT IS SAT AT 11  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1-X4 C AT 1  
ECOUNT IS M1-X4 C AT 11

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE  
L19 SCR 2043  
L20 13043 SEA FILE=REGISTRY SSS FUL L18 AND L19

100.0% PROCESSED 32523 ITERATIONS 13043 ANSWERS  
SEARCH TIME: 00.00.03

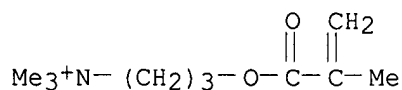
=> d L71 1-34 cbib abs hitstr hitind  
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:n

=> file hcaplus

=> d L71 1-34 cbib abs hitstr hitind

L71 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
2002:169293 Document No. 136:218663 Container-packed **liquid**  
**detergents** without metering error due to agglutination. Ishikawa,  
Akira; Fujii, Yukiko; Miyake, Toshio; Nishimura, Hiroshi (Kao Corp.,  
Japan). Jpn. Kokai Tokkyo Koho JP 2002068158 A2 20020308, 8 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-252458 20000823.  
AB The **liq. detergents** are packed in a container having  
an accommodating section where a quaternary N-contg. polymer exist therein  
for preventing metering error due to agglutination. A **detergent**  
contained Merquat 280 0.01, polyoxyethylene C10-14 straight-chain primary  
alc. ether 25, ethylene oxide-propylene oxide block copolymer C10-14  
straight chain primary alc. ether 15, C10-14 alkylbenzenesulfonic acid 1,  
coco fatty acid 1, ethanolamine 5, NaOH 0.2, p-TsOH 2, propylene glycol 4,  
EtOH 3, Na sulfite 0.1, **enzyme** 0.3, perfume 0.5, fluorescent dye  
0.5, and water the balance showing less agglutination to an HDPE bottle.  
IT **82149-47-1**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesion preventer; container-packed **liq. detergents**  
without metering error due to agglutination)  
RN 82149-47-1 HCAPLUS  
CN 1-Propanaminium, N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 55918-38-2

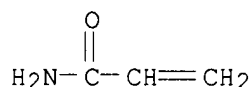
CMF C10 H20 N O2 . Cl

● Cl<sup>-</sup>

CM 2

CRN 79-06-1

CMF C3 H5 N O



- IC ICM B65D001-09  
ICS B65D083-00; C08F020-06; C08F020-56; C08F026-02; C11D003-37;  
C11D017-04; C11D017-08; D06L001-20; C08L101-00
- CC **46-6** (Surface Active Agents and Detergents)  
Section cross-reference(s): 38
- ST container packed **liq detergent** metering property;  
**quaternary ammonium** polymer agglutination container  
**liq detergent**
- IT Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C10-14 alkyl ether, **surfactant**; container-packed **liq**  
. **detergents** without metering error due to agglutination)
- IT Polyelectrolytes  
(adhesion preventer; container-packed **liq. detergents**  
without metering error due to agglutination)
- IT Polyesters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(bottle; container-packed **liq. detergents** without  
metering error due to agglutination)
- IT Bags  
Bottles  
Containers  
(container-packed **liq. detergents** without metering  
error due to agglutination)
- IT Linear low density polyethylenes  
Polyamides, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laminated bag; container-packed **liq. detergents**  
without metering error due to agglutination)
- IT **Detergents**  
(**liq.**; container-packed **liq. detergents**  
without metering error due to agglutination)
- IT **Quaternary ammonium** compounds, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymers, acrylic; container-packed **liq. detergents**

- without metering error due to agglutination)
- IT Adhesion, physical  
(preventer, **quaternary ammonium** polymers;  
container-packed **liq. detergents** without metering  
error due to agglutination)
- IT 74-85-1D, Ethene, polymers with .alpha.-olefins, polymers with  
.alpha.-olefins  
RL: TEM (Technical or engineered material use); USES (Uses)  
(LLDPE, laminated bag; container-packed **liq.  
detergents** without metering error due to agglutination)
- IT 26590-05-6, Merquat 550 53694-17-0, Merquat 280 **82149-47-1**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(adhesion preventer; container-packed **liq. detergents**  
without metering error due to agglutination)
- IT 9002-88-4, HDPE 25038-59-9, PET polyester, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(bottle; container-packed **liq. detergents** without  
metering error due to agglutination)
- IT 9003-11-6D, Ethylene oxide-propylene oxide copolymer, C10-14 alkyl ether  
106392-12-5D, Ethylene oxide-propylene oxide block copolymer, C10-14 alkyl  
ether  
RL: TEM (Technical or engineered material use); USES (Uses)  
(container-packed **liq. detergents** without metering  
error due to agglutination)
- IT 7429-90-5, Aluminum, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(foil, laminated bag; container-packed **liq.  
detergents** without metering error due to agglutination)
- IT 25322-68-3D, C10-14 alkyl ether  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**surfactant**; container-packed **liq.  
detergents** without metering error due to agglutination)

L71 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2002:47514 Document No. 136:90713 **Foaming cleansing**

**composition** in the form of a transparent gel. Guillou, Veronique;  
Sebillotte-Arnaud, Laurence; Bordeaux, Dominique (L'Oreal, Fr.). Eur.  
Pat. Appl. EP 1172096 A1 20020116, 15 pp. DESIGNATED STATES: R: AT, BE,  
CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV,  
FI, RO. (French). CODEN: EPXXDW. APPLICATION: EP 2001-401834 20010709.  
PRIORITY: FR 2000-9111 20000712.

AB A skin and hair cleansing transparent gel contg. a phosphate  
**surfactant**, a **foaming nonionic surfactant**, and  
a cationic polymer is disclosed. The compn. has good phys. stability and  
good cosmetic properties. A cosmetic **cleanser** contained lauryl  
phosphate 6.5, decyl glucoside 16.25, Polyquaternium-7 5.7, PEG-150  
pentaerythrityl tetrastearate 0.5, glycerin 3.5, sorbitol 3.5, potassium  
hydroxide 1.7, hydroxypropyl cellulose 0.2, disodium EDTA 0.05, sodium  
chloride 0.1, preservative 0.3, and water q.s. 100%.

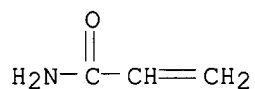
IT **26006-22-4**, Polyquaternium-5 **35429-19-7**,  
Polyquaternium-15 **53633-54-8**, Polyquaternium-11  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(**foaming cleansing compn.** in form of  
transparent gel)

RN **26006-22-4** HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl  
sulfate, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 79-06-1  
CMF C3 H5 N O

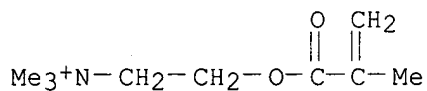


CM 2

CRN 6891-44-7  
CMF C9 H18 N O2 . C H3 O4 S

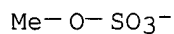
CM 3

CRN 33611-56-2  
CMF C9 H18 N O2



CM 4

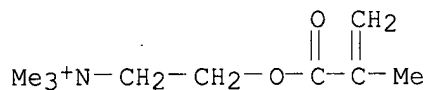
CRN 21228-90-0  
CMF C H3 O4 S



RN 35429-19-7 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1  
CMF C9 H18 N O2 . Cl



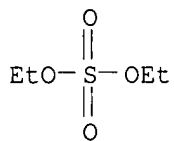
● Cl<sup>-</sup>

CM 2

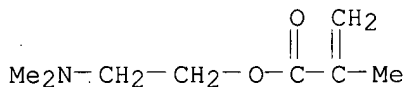
CRN 79-06-1

$$\text{H}_2\text{N}-\overset{\text{O}}{\underset{\parallel}{\text{C}}}-\text{CH}=\text{CH}_2$$

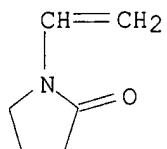
CRN 64-67-5  
CMF C4 H10 O4 S



CRN 2867-47-2  
CMF C8 H15 N O2



CRN 88-12-0  
CMF C6 H9 N O



Page 7

- CC 62-4 (Essential Oils and Cosmetics)  
 ST cosmetic cleansing transparent gel **surfactant** polymer  
 IT Glycosides  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (alkyl polyglycosides; **foaming cleansing compn.** in form of transparent gel)  
 IT Polyelectrolytes  
 (cationic; **foaming cleansing compn.** in form of transparent gel)  
 IT Cosmetics  
 (**cleansing; foaming cleansing compn.** in form of transparent gel)  
 IT Fatty acids, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (esters; **foaming cleansing compn.** in form of transparent gel)  
 IT Alcohols, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (fatty; **foaming cleansing compn.** in form of transparent gel)  
 IT Hair preparations  
 (**foaming cleansing compn.** in form of transparent gel)  
 IT Acrylic polymers, biological studies  
 Carbohydrates, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (**foaming cleansing compn.** in form of transparent gel)  
 IT **Surfactants**  
 (nonionic; **foaming cleansing compn.** in form of transparent gel)  
 IT **Quaternary ammonium** compounds, biological studies  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (polymers; **foaming cleansing compn.** in form of transparent gel)  
 IT 2627-35-2 3991-73-9D, esters 7664-38-2D, Phosphoric acid, alkyl derivs. 9003-39-8, Polyvinyl pyrrolidone 12751-23-4, Map 20  
 25136-75-8, Polyquaternium-39 25618-55-7, Polyglycerol  
**26006-22-4**, Polyquaternium-5 26062-79-3, Polyquaternium-6  
 26590-05-6, Polyquaternium-7 **35429-19-7**, Polyquaternium-15  
 39322-78-6, Potassiumlauryl phosphate **53633-54-8**,  
 Polyquaternium-11 53694-17-0, Polyquaternium-22 81859-24-7,  
 Polyquaternium-10 95144-24-4, Polyquaternium-16 130249-48-8, Crothix  
 131954-48-8, Polyquaternium-28 150599-70-5, Polyquaternium-44  
 159446-99-8, Chimexane nf 174761-16-1, Polyquaternium-46 197969-51-0,  
 Polyquaternium-47 278184-48-8, Mydol 10  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (**foaming cleansing compn.** in form of transparent gel)

L71 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2001:717366 Document No. 135:274603 Antisoiling **cleaning**

**compositions for hard-surface** articles. Ono,

Masato; Nakajima, Koji; Suzuki, Ayako; Miyake, Hiroshi (Lion Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001271094 A2 20011002, 16 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-86997 20000327.

- AB The compns. contain (A) polymers prepd. from (a) anionic vinyl monomers, (b) cationic vinyl monomers, and (c) nonionic vinyl monomers with a mol ratio of (a)/(b) (80-20)/(20-80) and wt. ratio of (c)/[(a) + (b) + (c)] 0-50 and (B) surfactants with a wt. ratio of A/B 1/(1.25-100), (C)



sequestering agents, and/or (D) solvents. Thus, a compn. contg. 0.75% tert-Bu methacrylate-N,N-dimethylaminoethyl methacrylate-methacrylic acid copolymer and 1.5% K laurate showed good detergency and antisoiling properties when used on a fiber-reinforced plastic bathtub and a stainless kitchen sink.

IT 26182-93-4, Acrylic acid-N,N-Dimethylaminoethyl methacrylate-ethyl acrylate copolymer 364062-33-9  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (antisoiling **cleaning compns.** for hard-  
**surface** articles)

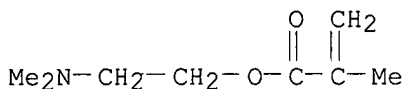
RN 26182-93-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

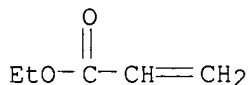
CMF C8 H15 N O2



CM 2

CRN 140-88-5

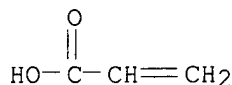
CMF C5 H8 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



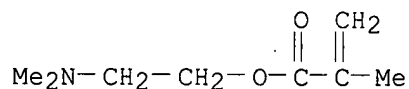
RN 364062-33-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-methylethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

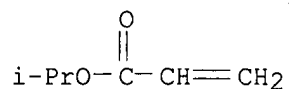
CRN 2867-47-2

CMF C8 H15 N O2



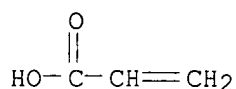
CM 2

CRN 689-12-3  
CMF C6 H10 O2



CM 3

CRN 79-10-7  
CMF C3 H4 O2



- IC ICM C11D003-37  
ICS C11D017-08; C09K003-00  
CC 46-6 (Surface Active Agents and Detergents)  
IT **Quaternary ammonium** compounds, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(alkylbenzyltrimethyl, chlorides; antisoiling **cleaning compns.** for **hard-surface** articles)
- IT Bathtubs  
**Detergents**  
Enamels (vitreous)  
Sequestering agents  
Solvents  
Surfactants  
**Tiles**  
(antisoiling **cleaning compns.** for **hard-surface** articles)
- IT Marble, artificial  
RL: MSC (Miscellaneous)  
(antisoiling **cleaning compns.** for **hard-surface** articles)
- IT Amides, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(coco, N,N-bis(hydroxyethyl); antisoiling **cleaning compns.** for **hard-surface** articles)
- IT Reinforced plastics  
RL: MSC (Miscellaneous)  
(fiber-reinforced; antisoiling **cleaning compns.** for **hard-surface** articles)
- IT Buildings

(kitchens; antisoiling cleaning compns.  
for hard-surface articles)

IT 9002-86-2, Vinyl chloride polymer 9003-07-0, Polypropylene 12597-68-1,  
Stainless steel, miscellaneous  
RL: MSC (Miscellaneous)

(antisoiling cleaning compns. for hard-  
surface articles)

IT 77-92-9, Citric acid, uses 79-14-1, Glycolic acid, uses 112-34-5,  
Diethylene glycol monobutyl ether 1643-20-5, Laurylamine oxide  
2809-21-4 4292-10-8, Laurylamidopropylbetaine 5989-27-5 9002-92-0,  
Polyethylene glycol lauryl ether 9004-82-4, Ethoxylated sodium  
laurylsulfate 10124-65-9, Potassium laurate 25155-30-0, Sodium  
laurylbenzenesulfonate 25961-91-5, Triethylene glycol monopentyl ether  
**26182-93-4**, Acrylic acid-N,N-Dimethylaminoethyl methacrylate-ethyl  
acrylate copolymer 27175-91-3, Sodium tetradecanesulfonate 28675-43-6,  
N,N-Dimethylaminoethyl methacrylate-methacrylic acid copolymer  
56539-66-3, 3-Methoxy-3-methylbutanol 56585-42-3, Ethylenediamine  
tetraacetate 79716-11-3, Butyl methacrylate-N,N-Dimethylaminoethyl  
methacrylate-methacrylic acid copolymer 175017-88-6, Hexaethylene glycol  
mono(2-ethyl)hexyl ether 346701-49-3, tert-Butyl methacrylate-N,N-  
Dimethylaminoethyl methacrylate-methacrylic acid copolymer 364062-31-7  
364062-32-8 **364062-33-9** 364062-34-0 364062-35-1  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)

(antisoiling cleaning compns. for hard-  
surface articles)

L71 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2001:675093 Document No. 136:152715 Film formation from **cationic**  
electropaint systems **containing** resins with different glass  
transition temperature. Suzuki, Y.-I.; Fukui, H.; Tsuchiya, K.; Arita,  
S.; Ogata, Y. H. (Central R&D Laboratory, C. Uyemura & Co., Ltd.,  
Hirakata, Osaka, 573-0065, Japan). Progress in Organic Coatings, 42(3-4),  
209-217 (English) 2001. CODEN: POGCAT. ISSN: 0300-9440. Publisher:  
Elsevier Science S.A..

AB Some phenomena in the deposition process of electropainting have not been  
well elucidated till now. In this paper, to investigate an influence of  
glass transition temp. (Tg) on film formation, the deposited film was  
obsd. with an at. force microscope and the electrochem. was investigated,  
using two kinds of cationic acrylate resin with different Tg (Me  
methacrylate system (MMAs): Tg=70.degree.C, and Me acrylate system (MAS):  
Tg=5.degree.C). Electrodeposition was performed under const. voltage or  
current condition. At const. voltage, the deposition behavior in the two  
resin systems differed extremely. The MMAs, the resin with high Tg,  
produced a high resistance film. The MAS, the resin with low Tg, was  
deposited forming a film at a voltage lower than 20 V. At const. current,  
the film formation did not result in a rise in voltage. It behaved like a  
conductive film. When the resin with high Tg was used, particulate  
deposits were obsd. by AFM even in the induction period. The resin with  
low Tg formed flat deposits. These results suggest that paint deposition  
is initiated once electrolysis of water starts. In addn., there are two  
types of film formation on the cationic electropainting: high resistance  
film formation for the resin with high Tg, and ion-permeable film  
formation for the resin with low Tg. In both cases, film growth occurs at  
the film/bulk soln. interface.

IT **394246-26-5P**, 2-(Dimethylamino)ethyl methacrylate-methyl  
acrylate-2-hydroxyethyl methacrylate copolymer  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
(Physical process); SPN (Synthetic preparation); TEM (Technical or  
engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(film formation from **cationic** electropaint systems  
**contg.** resins with different glass transition temp.)

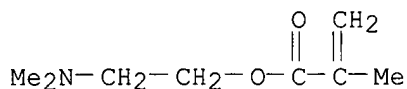
RN 394246-26-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-propenoate (9CI) (CA  
 INDEX NAME)

CM 1

CRN 2867-47-2

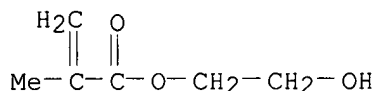
CMF C8 H15 N O2



CM 2

CRN 868-77-9

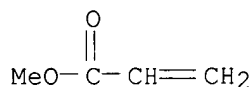
CMF C6 H10 O3



CM 3

CRN 96-33-3

CMF C4 H6 O2



CC 42-2 (Coatings, Inks, and Related Products)

IT Electrodeposition

Glass transition temperature

Paints

(film formation from **cationic** electropaint systems  
**contg.** resins with different glass transition temp.)

IT 28260-47-1P, 2-(Dimethylamino)ethyl methacrylate-methyl  
 methacrylate-2-hydroxyethyl methacrylate copolymer **394246-26-5P**,  
 2-(Dimethylamino)ethyl methacrylate-methyl acrylate-2-hydroxyethyl  
 methacrylate copolymer

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
 (Physical process); SPN (Synthetic preparation); TEM (Technical or  
 engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(film formation from **cationic** electropaint systems  
**contg.** resins with different glass transition temp.)

L71 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2001:349206 Document No. 134:341859 Laundry detergent composition with good

oil and grease releasing ability. Tanaka, Atsushi; Yui, Koji; Tagata, Shuji (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001131590 A2 20010515, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-316918 19991108.

AB Title detergent compn., esp. effective for cotton textile, comprises (A) ampholytic copolymers prepd. from anionic and cationic monomers (except graft copolymers) 0.01-50 and (B) poly(ethylene glycol) 0.01-50 wt%. Thus, acrylic acid-2-(N,N-dimethylamino) Et methacrylate copolymer Na salt 0.5, sodium polyacrylate 10, polyethylene glycol 5, Na C12-alkyl benzene sulfonate 20, polyoxyethylene alkyl (C12) ether 5, Na2SO3 1, K2CO3 4, Na2CO3 15, Na silicate 10, acrylic acid-maleic acid copolymer Na salt 5, zeolite 20 parts, and other additives gave a compn. showing good cleaning results.

IT 59779-19-0P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of laundry detergent compn. with good oil and grease releasing ability)

RN 59779-19-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 26655-25-4

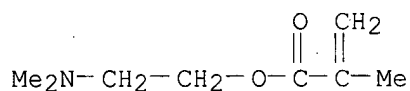
CMF (C8 H15 N O2 . C3 H4 O2)x

CCI PMS

CM 2

CRN 2867-47-2

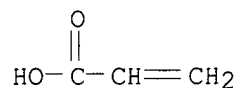
CMF C8 H15 N O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



IC ICM C11D003-37

ICS D06M015-267

CC 46-5 (Surface Active Agents and Detergents)

IT **Enzymes**, uses

Zeolites (synthetic), uses

RL: MOA (Modifier or additive use); USES (Uses)

(prepn. of laundry detergent compn. with good oil and grease releasing ability)

IT 59779-19-0P 337970-32-8P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of laundry detergent compn. with good oil and grease releasing ability)

L71 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2001:347189 Document No. 134:328240 Soil-releasing agent for laundry composition. Tanaka, Atsushi; Yui, Koji; Takaga, Shuji (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001131587 A2 20010515, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-313442 19991104.

AB Title agent, esp. effective for releasing oil or grease from cotton textile, is based on a copolymer comprising ionic main chain grafted with side groups possessing the opposite ions. Thus, sodium polyacrylate grafted with 2-(N,N-dimethylamino) Et methacrylate 0.5, Na C12-alkyl benzene sulfonate 20, polyoxyethylene alkyl (C12) ether 5, Na2SO3 1, and K2CO3 4 parts gave a compn. showing good cleaning ability.

IT 337380-02-6P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of soil-releasing agent for laundry compn.)

RN 337380-02-6 HCAPLUS

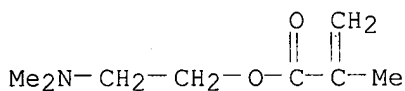
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid, graft, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 337380-01-5  
CMF (C8 H15 N O2 . C3 H4 O2)x  
CCI PMS  
CDES 8:PM,GRAFT

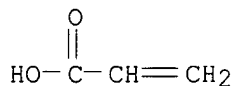
CM 2

CRN 2867-47-2  
CMF C8 H15 N O2



CM 3

CRN 79-10-7  
CMF C3 H4 O2



IC ICM C11D003-37  
ICS D06M015-267  
CC 46-5 (Surface Active Agents and Detergents)

IT **Enzymes**, uses  
Polyoxyalkylenes, uses  
Zeolites (synthetic), uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(prepn. of soil-releasing agent for laundry compn.)

IT **337380-02-6P**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(prepn. of soil-releasing agent for laundry compn.)

L71 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
2000:842230 Document No. 134:18782 **Liquid detergent**  
**compositions** comprising block polymeric suds enhancers and hand  
**dishwashing**. Bodet, Jean-Francois; Sivik, Mark Robert; Kluesener,  
Bernard William; Scheper, William Michael; Bergeron, Vance; Yeung, Dominic  
Wai-Kwing (The Procter & Gamble Company, USA; Rhodia, Inc.). PCT Int.  
Appl. WO 2000071660 A1 20001130, 96 pp. DESIGNATED STATES: W: AE, AL,  
AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE,  
DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,  
TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR,  
GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.  
(English). CODEN: PIXXD2. APPLICATION: WO 2000-US14428 20000525.  
PRIORITY: US 1999-320022 19990526.

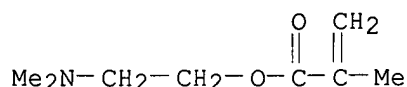
AB **Liq. detergent compns.** comprise .gtoreq.1  
block polymeric suds enhancer and a suds vol. extender, the compns. having  
increased effectiveness for preventing re-deposition of grease during hand  
washing. Suds vol. and suds endurance enhancers comprise a polymeric suds  
stabilizer of (i) units capable of having a cationic charge at a pH  
.apprx.4-12; provided that the suds stabilizer has an av. cationic charge  
d. .ltoreq.2.77 units/100 daltons at a pH .apprx.4-12, optionally one or  
more addnl. building blocks such as hydroxyl-contg. units, hydrophobic  
group-contg. units, hydrophilic group-contg. units, anionic units, other  
cationic units, H-bonding units and zwitterionic units, (b) deterative  
surfactant, and (c) the balance carriers and other adjunct ingredients  
e.g. diamines; provided that a 10% aq. soln. of the  
**detergent compn.** has a pH .apprx.4-12. An example  
detergent contained alkyl sulfates 33.29, hydroxy fatty acid amide 4.2,  
amine oxide surfactant 4.8, alc. ethoxylate 1.0, MgCl2 0.72, Ca citrate  
0.35, suds booster dimethylaminoethyl methacrylate-Me acrylate block  
copolymer 0.5%, and the balance water.

IT **221526-83-6P**, 2-(Dimethylamino)ethyl methacrylate-methyl acrylate  
block copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
(Preparation); USES (Uses)  
(liq. hand **dishwashing detergent**  
**compns.** comprising block polymeric suds enhancers preventing  
re-deposition of grease in removing greasy soils from dish ware)

RN 221526-83-6 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
methyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

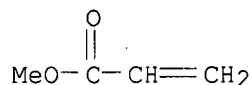
CRN 2867-47-2  
CMF C8 H15 N O2



CM 2

CRN 96-33-3

CMF C4 H6 O2



- IC ICM C11D003-37  
ICS C11D003-30; C11D003-00
- CC 46-5 (Surface Active Agents and Detergents)
- ST polymeric suds enhancer **liq detergent**; grease removal  
**liq dishwashing detergent**; foam stabilizer  
booster **dishwashing detergent**; cationic block polymer  
foam stabilizer
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(diamines; **liq. hand dishwashing detergent**  
**comps.** comprising block polymeric suds enhancers preventing  
re-deposition of grease in removing greasy soils from dish ware)
- IT **Detergents**  
(**dishwashing**; **liq. hand dishwashing**  
**detergent comps.** comprising block polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Stabilizing agents  
(for foam; **liq. hand dishwashing detergent**  
**comps.** comprising block polymeric suds enhancers preventing  
re-deposition of grease in removing greasy soils from dish ware)
- IT **Detergents**  
(**liq.**; **liq. hand dishwashing**  
**detergent comps.** comprising block polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT **221526-83-6P**, 2-(Dimethylamino)ethyl methacrylate-methyl acrylate  
block copolymer 310440-41-6P, Acrylic acid-2-(dimethylamino)ethyl  
methacrylate-2-hydroxyethyl acrylate block copolymer 310440-42-7P,  
2-(Dimethylamino)ethyl methacrylate-2-hydroxyethyl acrylate-styrene block  
copolymer 310440-43-8P, 2-(Dimethylamino)ethyl methacrylate-2-  
hydroxyethyl methacrylate block copolymer 310440-44-9P, Acrylic  
acid-2-(dimethylamino)ethyl methacrylate-2-hydroxyethyl acrylate-styrene  
block copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
(Preparation); USES (Uses)  
(**liq. hand dishwashing detergent**  
**comps.** comprising block polymeric suds enhancers preventing  
re-deposition of grease in removing greasy soils from dish ware)
- IT 2579-20-6, 1,3-Cyclohexanedimethanamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(**liq. hand dishwashing detergent**



**compns.** comprising block polymeric suds enhancers preventing re-deposition of grease in removing greasy soils from dish ware)

L71 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2000:842182 Document No. 134:29811 Block polymers, compositions and methods of use for foams, **laundry** detergents, shower rinses and coagulants. Yeung, Dominic Wai-Kwing; Bergeron, Vance; Bodet, Jean-Francois; Sivik, Mark Robert; Kluesener, Bernard William; Scheper, William Michael (Rhodia Inc., USA). PCT Int. Appl. WO 2000071591 A1 20001130, 163 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US14314 20000525. PRIORITY: US 1999-318942 19990526.

AB The present invention relates to a block polymeric material. Typically the block polymer comprises units capable of having an av. cationic charge d. of about 15 or less, preferably 5 or less, more preferably from about 0.05 to about 5, even more preferably from about 0.05 to about 2.77, even more preferably from about 0.1 to about 2.75, most preferably from about 0.75 to about 2.25 units per 100 daltons mol. wt. at a pH of from about 4 to about 12. The polymeric material is a suds enhancer and a suds vol. extender for personal car products such as soaps and shampoos. The compns. have increased effectiveness for preventing re-deposition of grease during hand and body washing. The polymers are also effective as a soil release agent in fabric **cleaning compns.** The polymeric material is also effective in oil well treating foam, fire-fighting foam, **hard surface cleaning** foam, shaving cream, post-foaming shaving gel, depilatories and as a coagulant/retention aid for titanium dioxide in paper making.

IT **221526-83-6P**, 2-(Dimethylamino)ethyl methacrylate-methyl acrylate block copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(block polymers, compns. and methods of use for foams, **laundry** detergents, shower rinses and coagulants)

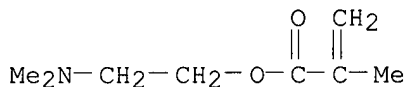
RN 221526-83-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-propenoate, block (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

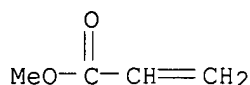
CMF C8 H15 N O2



CM 2

CRN 96-33-3

CMF C4 H6 O2



- IC ICM C08F130-08  
ICS C08K005-16; A61K007-075
- CC 35-4 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 46, 62
- IT Fire extinguishers  
Paper  
Shampoos  
Shaving preparations  
(block polymers, compns. and methods of use for foams, **laundry** detergents, shower rinses and coagulants)
- IT Cosmetics  
(**cleansing**; block polymers, **compns.** and methods of use for foams, **laundry** detergents, shower rinses and coagulants)
- IT Detergents  
(foam; block polymers, compns. and methods of use for foams, **laundry** detergents, shower rinses and coagulants)
- IT Detergents  
(**laundry**; block polymers, **compns.** and methods of use for foams, **laundry** detergents, shower rinses and coagulants)
- IT **221526-83-6P**, 2-(Dimethylamino)ethyl methacrylate-methyl acrylate block copolymer 310440-43-8P, 2-(Dimethylamino)ethyl methacrylate-2-hydroxyethyl methacrylate block copolymer 310463-26-4P, Acrylic acid-2-(Dimethylamino)ethyl methacrylate-2-hydroxyethyl methacrylate block copolymer 310463-27-5P 310463-28-6P 310463-29-7P, 2-(Dimethylamino)ethyl methacrylate-2-hydroxyethyl methacrylate-styrene block copolymer 310463-30-0P 310898-09-0P, Acrylic acid-2-(dimethylamino)ethyl methacrylate-polyethylene glycol acrylate block copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(block polymers, compns. and methods of use for foams, **laundry** detergents, shower rinses and coagulants)

L71 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2002 ACS

2000:842039 Document No. 134:30636 Compositions using zwitterionic polymeric suds enhancers for cleaning hard surfaces, body parts, fabrics, and dish ware. Sivik, Mark Robert; Bodet, Jean-Francois; Kluesener, Bernard William; Scheper, William Michael; Bergeron, Vance; Yeung, Dominic Wai-Kwing (Procter and Gamble Company, USA; Rhodia, Inc.). PCT Int. Appl. WO 2000071240 A1 20001130, 105 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US14407 20000525. PRIORITY: US 1999-320834 19990526.

- AB Zwitterionic polymeric suds enhancers (stabilizers) increase the suds and/or foam vol. and suds and/or foam retention in suds-forming and/or foam-forming compns. (e.g. detergents). The compns. (pH 4-12) contain the

suds enhancers, deteratives, and carriers and other adjunct ingredients. An example hard surface cleaner contained **protease** 0.05, zwitterionic polymer 1.0, alkyl sulfate 2.0, alkyl sulfate ethoxylate 2.0, amine oxide 0.4%, and the balance water.

IT 26655-25-4P, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer 53232-15-8P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(detergent compns. comprising zwitterionic polymeric suds enhancers preventing re-deposition of grease in removing greasy soils from dish ware, fabric, and body parts)

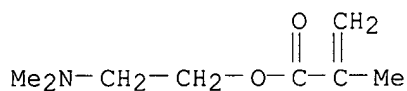
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

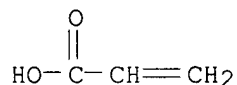
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



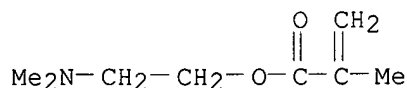
RN 53232-15-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

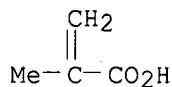
CMF C8 H15 N O2



CM 2

CRN 79-41-4

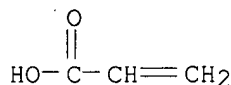
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



- IC ICM B01F017-00  
ICS C11D003-37; A01N025-16; C09K007-08; A62D001-00; C11D003-00
- CC 46-5 (Surface Active Agents and Detergents)
- IT 109-55-7DP, 3-Dimethylaminopropylamine, reaction products with maleic anhydride-olefin polymers 25154-86-3P, Poly(2-(dimethylamino)ethyl methacrylate) **26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer 28675-43-6P, 2-(Dimethylamino)ethyl methacrylate-methacrylic acid copolymer **53232-15-8P**  
108919-59-1DP, Maleic anhydride-1-octene alternating copolymer, reaction products with dimethylaminopropylamine 131062-60-7P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide copolymer 135093-08-2DP, reaction products with dimethylaminopropylamine 225935-81-9P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide-methacrylic acid copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(detergent comps. comprising zwitterionic polymeric suds enhancers preventing re-deposition of grease in removing greasy soils from dish ware, fabric, and body parts)
- L71 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
2000:822810 Document No. 133:364428 Polyelectrolytic gel. Maruyama, Kunio; Tanaka, Koji; Hamamoto, Shiro (Toyō Boseki Kabushiki Kaisha, Japan). Eur. Pat. Appl. EP 1054465 A1 20001122, 29 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-110245 20000519. PRIORITY: JP 1999-140597 19990520.
- AB This invention includes a polyelectrolytic gel comprising a polymer component and a nonaq. solvent, characterized in that the polymer component is a crosslinked polymer having nitrogen-**contg. cationic** functional group or a mixt. of a non-crosslinked polymer having nitrogen-**contg. cationic** functional group and a crosslinked polymer free of nitrogen-**contg. cationic** functional group, the polymer component being swollen with the nonaq. solvent **contg.** an electrolyte dissolved therein. The electrolytic gel of the invention is excellent in heat resistance and durability and also in electrocond., esp. ion cond.
- IT **307952-55-2**, Acrylonitrile-Methacrylic acid, 2-(dimethylamino)ethyl ester-2-Propenoic acid, methyl ester-1,9-nonanediol dimethacrylate copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(polyelectrolytic gel)

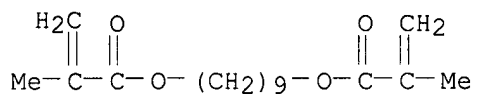
RN 307952-55-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,9-nonanediyl ester, polymer with  
2-(dimethylamino)ethyl 2-methyl-2-propenoate, methyl 2-propenoate and  
2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 65833-30-9

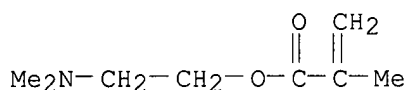
CMF C17 H28 O4



CM 2

CRN 2867-47-2

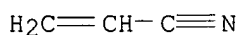
CMF C8 H15 N O2



CM 3

CRN 107-13-1

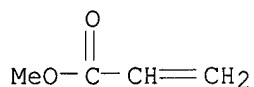
CMF C3 H3 N



CM 4

CRN 96-33-3

CMF C4 H6 O2



IC ICM H01M006-18

ICS C08F220-44; H01G009-02; G01N027-407; H01B001-12

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)  
Section cross-reference(s): 38IT 307952-51-8, Acrylonitrile-(Dimethylamino)ethyl methacrylate-1,9-  
nonanediol dimethacrylate copolymer 307952-52-9 307952-53-0,  
Acrylonitrile-dimethylaminoethyl acrylate-1,9-nonanediol dimethacrylate  
copolymer 307952-54-1, Acrylonitrile-Methacrylic acid,  
2-(dimethylamino)ethyl ester-1,9-nonanediol dimethacrylate-vinyl acetate  
copolymer **307952-55-2**, Acrylonitrile-Methacrylic acid,

2-(dimethylamino)ethyl ester-2-Propenoic acid, methyl ester-1,9-nonanediol dimethacrylate copolymer 307952-56-3, Acrylonitrile-Methacrylic acid, 2-(dimethylamino)ethyl ester-methacrylic acid-1,9-nonanediol dimethacrylate copolymer 307952-57-4, Acrylonitrile-(Dimethylamino)ethyl methacrylate-polyethylene glycol dimethacrylate copolymer 307952-58-5, Acrylonitrile-aminoethyl methacrylate-polyethylene glycol dimethacrylate copolymer 307952-59-6, Acrylonitrile-N-monoethylaminoethyl methacrylate-polyethylene glycol dimethacrylate copolymer 307952-60-9, Acrylonitrile-N,N-diethylaminoethyl methacrylate-polyethylene glycol dimethacrylate copolymer 307952-61-0, Acrylonitrile-N,N,N-trimethylaminoethyl methacrylate hydroxide-polyethylene glycol dimethacrylate copolymer 307952-62-1, Acrylonitrile-N-aminoethyl methallylamine-polyethylene glycol dimethacrylate copolymer 307952-64-3 307952-65-4, Acrylonitrile-N,N-diethylaminoethyl methacrylate nitrate-polyethylene glycol dimethacrylate copolymer 307952-66-5 307952-67-6 307952-68-7 307952-69-8 307952-70-1  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (polyelectrolytic gel)

L71 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1999:65340 Document No. 130:182920 Amphoteric copolymers with good surface activity and their manufacture. Doi, Ikuko; Morohara, Kiyoshi; Danno, Yukihiko; Isota, Masnori; Yoshii, Toru (Lion Corp., Japan). Jpn. Kokai Tokkyo Koho JP 11021313 A2 19990126 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-189015 19970630.

AB Title copolymers are manufd. by copolymerizing monomer mixts. of (A) CH<sub>2</sub>:CR<sub>1</sub>CO<sub>2</sub>R<sub>2</sub>NR<sub>3</sub>R<sub>4</sub> and/or CH<sub>2</sub>:CR<sub>1</sub>CONHR<sub>2</sub>NR<sub>3</sub>R<sub>4</sub> (R<sub>1</sub> = H, Me; R<sub>2</sub> = lower alkylene; R<sub>3</sub>, R<sub>4</sub> = lower alkyl), (B) CH<sub>2</sub>:CR<sub>1</sub>CO<sub>2</sub>R<sub>5</sub> (R<sub>5</sub> = C<sub>1</sub>-24 aliph. or arom. groups), and (C) 0-10% water-sol. unsatd. compds. at wt. ratio of A/B (30-90)/(10-70) and subsequently reacting the resulting copolymers with XR<sub>6</sub>CO<sub>2</sub>M (I; R<sub>6</sub> = C<sub>7</sub>-23 linear or branched alkylene, alkenylene; M = salt-forming cations; X = halo) to transform 5-100 mol% N atoms into cationic N atoms N+R<sub>6</sub>CO<sub>2</sub>M. Alternatively, the copolymers may be reacted with I and XR<sub>7</sub>CO<sub>2</sub>M (R<sub>7</sub> = C<sub>1</sub>-6 alkyl; M = salt-forming cations) to transform 5-100 mol% N atoms into N+R<sub>6</sub>CO<sub>2</sub>M (II) and N+R<sub>7</sub>CO<sub>2</sub>M (III) at II/(II + III) .gtoreq.5 mol%. Thus, 48 g dimethylaminoethyl methacrylate was copolymerized with 52 g cyclohexyl methacrylate and reacted with 68 g 2-bromooctanoic acid and 17 g KOH to give an amphoteric copolymer, which was useful as a high-mol.-wt. surfactant.

IT 31229-25-1DP, Dimethylaminoethyl methacrylate-methyl acrylate copolymer, reaction products with brominated fatty acid salts 113753-75-6DP, reaction products with brominated fatty acid salts  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (manuf. of amphoteric copolymers as high-mol.-wt. surfactants)

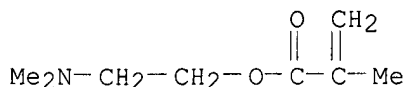
RN 31229-25-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-propenoate (9CI) (CA INDEX NAME)

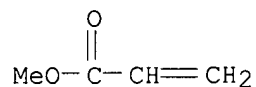
CM 1

CRN 2867-47-2

CMF C8 H15 N O2



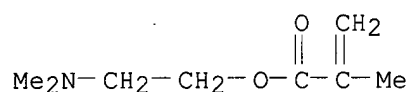
CM 2

CRN 96-33-3  
CMF C4 H6 O2

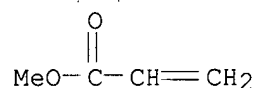
RN 113753-75-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

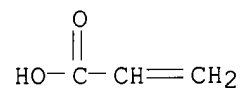
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2

CM 2

CRN 96-33-3  
CMF C4 H6 O2

CM 3

CRN 79-10-7  
CMF C3 H4 O2

IC ICM C08F008-44

ICS C08F020-36; C08F020-60

CC 35-8 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 46

IT 18982-05-3DP, 2-Bromooctanoic acid potassium salt, reaction products with dialkylaminoalkyl methacrylate copolymers 18982-09-7DP, reaction products with dialkylaminoalkyl methacrylate copolymers 26658-81-1DP, Cyclohexyl methacrylate-dimethylaminoethyl methacrylate copolymer,

reaction products with bromooctanoic acid salts **31229-25-1DP**,  
Dimethylaminoethyl methacrylate-methyl acrylate copolymer, reaction  
products with brominated fatty acid salts **113753-75-6DP**,  
reaction products with brominated fatty acid salts 220523-78-4DP,  
reaction products with bromooctanoic acid salts  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(manuf. of amphoteric copolymers as high-mol.-wt. surfactants)

L71 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1997:145273 Document No. 126:141392 Cellulases with reduced mobility by  
immobilization or gel incorporation for use in **laundry**  
**detergents** or fabric softeners. Nielsen, Jack Bech; Tikhomirov,  
Dmitry Feodorovich (Novo Nordisk A/s, Den.; Nielsen, Jack Bech;  
Tikhomirov, Dmitry Feodorovich). PCT Int. Appl. WO 9701629 A1 19970116,  
77 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH,  
CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ,  
LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,  
SD, SE, SG; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR,  
GA, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2.  
APPLICATION: WO 1996-DK284 19960626. PRIORITY: DK 1995-750 19950628.

AB A cellulolytic **enzyme** prepn. comprising a cellulase with reduced  
mobility is prepd., e.g., by increasing the mol. wt. or apparent size of  
the cellulase protein mol. or by insolubilizing or immobilizing the  
cellulase. The cellulase component may be immobilized by incorporation  
into a gel, by the formation of stable or temporary aggregates with  
enhanced mol. mass, by rapid immobilization of cellulase protein on insol.  
components, by rapid autoimmobilization of the cellulase protein, or by  
adsorption to an insol. or sol. carrier. The carrier is preferably a  
cellulose-contg. carrier of fibrous, microcryst., or amorphous structure,  
and more preferably a sol. or insol. polymer, esp. a polysaccharide  
capable of interaction with the **enzyme** via a cellulose binding  
domain (CBD) or catalytic domain, or a sol. polycationic cellulose deriv.  
For example, Humicola insolens 43-kDa cellulase (1.6 g/L) may be  
autoimmobilized on 100 g/L Avicel (microcryst. cellulose) by incubation in  
sodium phosphate buffer (0.05M, pH 7.5) at 20.degree. for 30 min, repeated  
centrifugation at 4000 rpm for 15 min and 5.degree., freezing the moist  
sediment, and milling. About 50% of the total cellulase is  
autoimmobilized by this procedure, and the immobilized cellulase retains  
full activity as "free" cellulase. The cellulase prepn. has a much lesser  
effect or influence on the durability or aging behavior of the cellulosic  
substrate than corresponding unmodified cellulases while at least having  
as good an effect on the look or feel, when used for treatment of  
cellulosic fabrics or textiles. The cellulase prepn. may be used for  
domestic or industrial **laundering** or fabric softening as an  
ingredient of a **detergent compn.**, for bio-polishing,  
or for stone-washing denim fabric or denim jeans or other dyed fabric or  
garments.

IT **30581-59-0**, Dimethylaminoethyl methacrylate-N-vinylpyrrolidone  
copolymer

RL: NUU (Other use, unclassified); USES (Uses)  
(cellulases with reduced mobility by immobilization or gel  
incorporation for use in **laundry detergents** or  
fabric softeners)

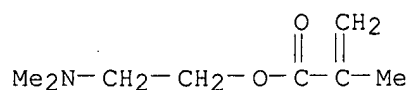
RN **30581-59-0** HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

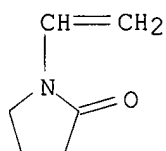


CRN 2867-47-2  
CMF C8 H15 N O2



CM 2

CRN 88-12-0  
CMF C6 H9 N O



IC ICM C12N009-42  
ICS C11D003-386; D06M016-00  
CC 7-7 (Enzymes)  
Section cross-reference(s): 46  
ST cellulase immobilization **detergent**  
IT Charcoal  
RL: NUU (Other use, unclassified); USES (Uses)  
(activated; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)  
IT Sulfonates  
RL: NUU (Other use, unclassified); USES (Uses)  
(alkanesulfonates; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)  
IT Sulfates, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(alkyl; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)  
IT Sulfonic acids, uses  
Sulfonic acids, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(alkylarene, sodium salts; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)  
IT **Quaternary ammonium** compounds, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(alkyltrimethyl, bromides; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)  
IT Aspergillus  
Bacillus (bacterium genus)  
Bacteria (Eubacteria)  
**Detergents**  
Fabric softeners  
Fungi

Fusarium  
Geotrichum  
Humicola  
Humicola insolens  
Microorganism  
Myceliophthora  
Paenibacillus lautus  
Penicillium  
Phanerochaete  
Schizophyllum (fungus)

**Surfactants**

(cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Agglutinins and Lectins

Albumins, uses  
Antibodies  
Bentonite, uses  
Diatomite  
Glutens  
Glycolipids  
Phospholipids, uses  
Polymers, uses  
Polyoxyalkylenes, uses  
Polysaccharides, uses  
Proteins, general, uses  
Zeolites (synthetic), uses

RL: NUU (Other use, unclassified); USES (Uses)

(cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Immobilization, biochemical

(**enzyme**; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Clay minerals

RL: NUU (Other use, unclassified); USES (Uses)

(hectorite-like; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Proteins, specific or class

RL: NUU (Other use, unclassified); USES (Uses)

(pea; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Proteins, specific or class

RL: NUU (Other use, unclassified); USES (Uses)

(potato; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Polyamines

RL: NUU (Other use, unclassified); USES (Uses)

(secondary; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

## IT Proteins, general, uses

RL: NUU (Other use, unclassified); USES (Uses)

(soybean; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

- IT Glycosides  
RL: NUU (Other use, unclassified); USES (Uses)  
(steroidal; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)
- IT Proteins, specific or class  
RL: NUU (Other use, unclassified); USES (Uses)  
(whey; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)
- IT 9004-34-6, Cellulose, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(Avicel or Vivicel or Sigmacel; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)
- IT 7585-39-9, .beta.-Cyclodextrin 7631-86-9, Silica, uses 9000-01-5, Gum arabic 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-40-2, Locust bean gum 9000-65-1, Tragacanth gum 9000-69-5, Pectin 9002-18-0, Agar 9002-89-5, Polyvinyl alcohol 9002-98-6, Polyethylenimine 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9003-39-8, Polyvinylpyrrolidone 9004-30-2, Carboxymethyl hydroxyethyl cellulose 9004-38-0, Cellulose acetate phthalate 9004-53-9, Dextrin 9004-54-0, Dextran, uses 9004-58-4, Ethyl hydroxyethyl cellulose 9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethyl cellulose 9004-65-3, Methyl hydroxypropyl cellulose 9005-25-8, Starch, uses 9005-38-3, Sodium alginate 9005-53-2, Lignin, uses 9005-80-5, Inulin 9011-85-2, Quince seed gum 9011-87-4, Methylacrylate-methylmethacrylate copolymer 9012-36-6, Agarose 9012-76-4, Chitosan 9032-42-2, Methyl hydroxyethyl cellulose 9036-66-2, Arabinogalactan 9041-56-9, Methyl hydroxybutyl cellulose 9050-30-0, Heparan sulfate 9050-31-1, Hydroxypropyl methyl cellulose phthalate 9057-02-7, Pullulan 9062-07-1, .iota.-Carrageenan 9064-57-7, .lambda.-Carrageenan 10016-20-3, .alpha.-Cyclodextrin 11078-31-2, Glucomannan 11114-20-8, .kappa.-Carrageenan 11128-96-4, Amberlite LA-2 11138-66-2, Xanthan gum 25104-18-1, Polylysine 25232-42-2, Polyvinylimidazole 25322-68-3 25608-40-6, Polyaspartic acid 26063-13-8, Polyaspartic acid **30581-59-0**, Dimethylaminoethyl methacrylate-N-vinylpyrrolidone copolymer 38000-06-5, Polylysine 50851-57-5 53320-86-8, Laponite 54724-00-4, Curdlan 71138-97-1, Hydroxypropyl methyl cellulose acetate succinate 84563-76-8, Chitosan glutamate 143928-11-4, Chondroitin tetrakis(hydrogen sulfate) (ester) 185323-66-4, Chondroitin octakis(hydrogen sulfate)  
RL: NUU (Other use, unclassified); USES (Uses)  
(cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)
- IT 9012-54-8, Cellulase  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)
- IT 25014-15-7, Poly(2-vinylpyridine)  
RL: NUU (Other use, unclassified); USES (Uses)  
(quaternary; cellulases with reduced mobility by immobilization or gel incorporation for use in **laundry detergents** or fabric softeners)

L71 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1996:685238 Document No. 125:303636 Amphoteric polymer dispersions and their manufacture and use as dispersing media for starch and starch derivatives

for coating and sizing paper. Exner, Reiner; Ulubay, Hasan; Hetterich, Karl (Giulini Chemie GmbH, Germany). Eur. Pat. Appl. EP 735065 A1 19961002, 11 pp. DESIGNATED STATES: R: AT, CH, DE, ES, FR, GB, IT, LI, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1995-104369 19950324.

AB Title dispersions are manufd. by polymn. of ethylenically unsatd. monomers contg. .ltoreq.30% monomers having carboxylic, sulfo, or phosphonic acid groups in the presence of hydrolyzed starch having av. mol. wt. 500-2000 and intrinsic viscosity <0.1 dL/g at starch-monomer ratio (1-20):(1-20), and polymn. of ethylenically unsatd. monomers having .ltoreq.35% cationic character with the resulting dispersion at a ratio of the amt. the 1st dispersion to the amt. of the monomer in the 2nd step of (1-10):(1-10). A typical dispersion was manufd. by polymn. of styrene 30, Bu acrylate (I) 15, and acrylic acid 1 part at 80.degree. in water contg. 126 parts starch acetate (substitution degree 0.03) 126, .alpha.-**amylase** LP 0.3, and Na2S2O8, and polymn. of styrene 90, I 45, and methacryloyloxymethyltrimethylammonium chloride 14 parts in the resulting dispersion at 85.degree. in the presence of Na hydroxymethanesulfinate and H2O2.

IT **30397-37-6P**, Acrylic acid-butyl acrylate-dimethylaminoethyl methacrylate-styrene copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (amphoteric polymer dispersions for use as dispersing media for starch and starch derivs. for coating and sizing paper)

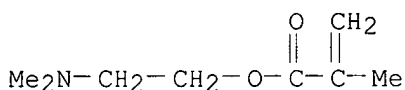
RN 30397-37-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with butyl 2-propenoate, ethenylbenzene and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

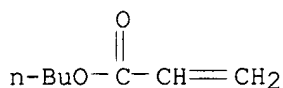
CMF C8 H15 N O2



CM 2

CRN 141-32-2

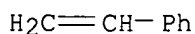
CMF C7 H12 O2



CM 3

CRN 100-42-5

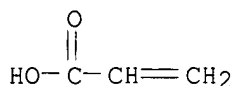
CMF C8 H8



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC ICM C08F285-00

ICS C08F251-00; C09D151-02; D21H017-28

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

IT **30397-37-6P**, Acrylic acid-butyl acrylate-dimethylaminoethyl methacrylate-styrene copolymer 183199-32-8P, Acrylic acid-butyl acrylate-methacryloyloxymethyltrimethylammonium chloride-styrene copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (amphoteric polymer dispersions for use as dispersing media for starch and starch derivs. for coating and sizing paper)

L71 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1996:504179 Document No. 125:150770 **Cleansing compositions**

containing **surfactants**, cellulose ethers and polyols. Elliott, Russell Phillip; Green, Matthew Thomas; Leahy, Christopher David; Papadimitriou, Eleni (Procter and Gamble Company, USA). PCT Int. Appl. WO 9617916 A1 19960613, 33 pp. DESIGNATED STATES: W: BR, CA, CN, JP, MX, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1995-US15722 19951201. PRIORITY: GB 1994-24476 19941203.

AB A liq. personal **cleansing compn.** comprises:

(a) .apprx.5-60 % by wt. of water-sol. **surfactant** selected from anionic, nonionic and amphoteric **surfactants** and mixts. thereof;  
 (b) .apprx.0.01-10 % by wt. of a hydrophobically modified nonionic cellulose ether selected from C10-C24 alkyl and alkenyl modified Me, hydroxyethyl and hydroxypropyl cellulose ethers having a degree of nonionic substitution in the range of .apprx. 1.8-4 and a degree of hydrophobic substitution .apprx. 0.1-1% by wt.; (c) .apprx.0-10% by wt. of a water-sol. polyol; (d) .apprx.0.01-5% by wt. of cationic polymeric skin conditioning agent; and (e) water; the compn. displays a shear stress of about 150 Pa at a shear rate in the range .apprx.100-600 s<sup>-1</sup> at 25.degree.. The products demonstrate excellent in-use efficacy benefits including mildness, a moisturized skin feel, desirable rheol. and application characteristics, good rinsibility and good product stability.

IT **55008-57-6**, Gafquat 755N

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(**cleansing compns.** contg. **surfactants**, cellulose ethers, polyols, and cationic polymeric skin conditioning agents)

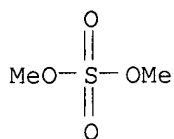
RN 55008-57-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone, compd. with dimethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1

CMF C2 H6 O4 S



CM 2

CRN 30581-59-0

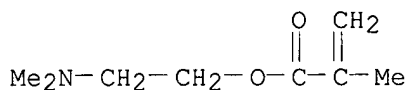
CMF (C8 H15 N O2 . C6 H9 N O)x

CCI PMS

CM 3

CRN 2867-47-2

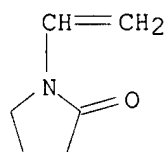
CMF C8 H15 N O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



IC ICM C11D001-38

ICS C11D001-66; C11D003-22; C11D003-37

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 46

ST cleansing cosmetic **surfactant** cellulose ether; polyol  
conditioning agent cleansing cosmetic

IT Perfumes

**Shampoos**(cleansing compns. contg. **surfactants**,  
cellulose ethers, polyols, and cationic polymeric skin conditioning  
agents)

IT Essential oils

Imidazolium compounds

**Quaternary ammonium** compounds, biological studies

- RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing compns. contg. surfactants,  
cellulose ethers, polyols, and cationic polymeric skin conditioning  
agents)
- IT Siloxanes and Silicones, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(quaternary ammonium group-contg.;  
cleansing compns. contg. surfactants,  
cellulose ethers, polyols, and cationic polymeric skin conditioning  
agents)
- IT Surfactants  
(amphoteric, cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Surfactants  
(anionic, cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Cosmetics  
(cleansing, cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Amides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(coco, amphodiacetate; cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Glycerides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(evening primrose-oil, mixts., ethoxylated, cleansing  
compns. contg. surfactants, cellulose ethers,  
polyols, and cationic polymeric skin conditioning agents)
- IT Amides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(fatty, polyhydroxy; cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Amides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(fatty, N,N-bis(hydroxyethyl), cleansing compns.  
contg. surfactants, cellulose ethers, polyols, and cationic  
polymeric skin conditioning agents)
- IT Amides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(fatty, N-(hydroxyethyl), cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Bath preparations  
(foams, cleansing compns. contg.  
surfactants, cellulose ethers, polyols, and cationic polymeric  
skin conditioning agents)
- IT Bath preparations  
(gels, cleansing compns. contg. surfactants

- , cellulose ethers, polyols, and cationic polymeric skin conditioning agents)
- IT **Surfactants**  
(nonionic, **cleansing compns.** contg.  
**surfactants**, cellulose ethers; polyols, and cationic polymeric skin conditioning agents)
- IT Alcohols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(polyhydric, **cleansing compns.** contg.  
**surfactants**, cellulose ethers, polyols, and cationic polymeric skin conditioning agents)
- IT Fats and Glyceridic oils  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(shea butter, ethoxylated; **cleansing compns.** contg.  
**surfactants**, cellulose ethers, polyols, and cationic polymeric skin conditioning agents)
- IT **Surfactants**  
(zwitterionic, **cleansing compns.** contg.  
**surfactants**, cellulose ethers, polyols, and cationic polymeric skin conditioning agents)
- IT 50-70-4, D-Sorbitol, biological studies 56-81-5, Glycerol, biological studies 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers 137-16-6, Sodium lauroyl sarcosinate 147-85-3, Proline, biological studies 9004-34-6D, Cellulose, ethers 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-67-5, Methyl cellulose 9004-82-4, Sodium laureth-3 sulfate 25322-69-4, Polypropylene glycol 26062-79-3, Dimethyldiallylammonium chloride homopolymer 28874-51-3 52504-24-2, Softigen 767 53694-17-0 **55008-57-6**, Gafquat 755N 81859-24-7 180032-23-9, Polysurf 67  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**cleansing compns.** contg. **surfactants**,  
cellulose ethers, polyols, and cationic polymeric skin conditioning agents)
- L71 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1996:504178 Document No. 125:150769 **Cleansing compositions**  
containing **surfactants** and cellulose ethers. Elliott, Russell  
Phillip; Green, Matthew Thomas; Leahy, Christopher David; Papadimitriou, Eleni (Procter and Gamble Company, USA). PCT Int. Appl. WO 9617917 A1 19960613, 31 pp. DESIGNATED STATES: W: BR, CA, CN, JP, MX, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1995-US15538 19951130. PRIORITY: GB 1994-24476 19941203; GB 1994-24509 19941205.
- AB A liq. personal **cleansing compn.** comprises:  
(a) .apprx.5-60% by wt. of water-sol. **surfactant** selected from anionic, nonionic and amphoteric **surfactants** and mixts. thereof;  
(b) .apprx.0.01-10% by wt. of a hydrophobically modified nonionic cellulose ether selected from C14-C18 alkyl and alkenyl modified, hydroxyethyl cellulose ethers having a degree of nonionic substitution in the range of .apprx.2.2-2.8 and a degree of hydrophobic substitution in the range of .apprx.0.4-0.6% by wt.; and (c) water; the compn. displays a shear stress of about 150 Pa at a shear rate in the range .apprx.400-600 s<sup>-1</sup> at 25.degree.. The products demonstrate excellent in-use efficacy benefits including mildness, a moisturized skin feel, good rinsibility and good product stability.
- IT **55008-57-6**, Gafquat 755N  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES



(Uses)

(cleansing comps. contg. surfactants and  
cellulose ethers)

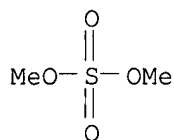
RN 55008-57-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
1-ethenyl-2-pyrrolidinone, compd. with dimethyl sulfate (9CI) (CA INDEX  
NAME)

CM 1

CRN 77-78-1

CMF C2 H6 O4 S



CM 2

CRN 30581-59-0

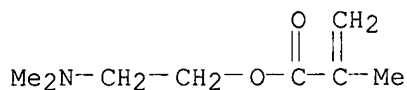
CMF (C8 H15 N O2 . C6 H9 N O)x

CCI PMS

CM 3

CRN 2867-47-2

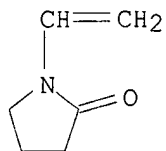
CMF C8 H15 N O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



IC ICM C11D001-66

ICS C11D003-22; C11D003-37

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 46

ST cleansing cosmetic **surfactant** cellulose ether

IT Perfumes

**Shampoos**

- (cleansing compns. contg. surfactants and cellulose ethers)
- IT Essential oils  
Imidazolium compounds  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing compns. contg. surfactants and cellulose ethers)
- IT **Surfactants**  
(amphoteric, cleansing compns. contg. surfactants and cellulose ethers)
- IT **Surfactants**  
(anionic, cleansing compns. contg. surfactants and cellulose ethers)
- IT Cosmetics  
(cleansing, cleansing compns. contg. surfactants and cellulose ethers)
- IT Amides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(coco, amphodiacetate; cleansing compns. contg. surfactants and cellulose ethers)
- IT Fats and Glyceridic oils  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(ethoxylated, cleansing compns. contg. surfactants and cellulose ethers)
- IT Glycerides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(evening primrose-oil, mixts., ethoxylated, cleansing compns. contg. surfactants and cellulose ethers)
- IT Bath preparations  
(foams, cleansing compns. contg. surfactants and cellulose ethers)
- IT Bath preparations  
(gels, cleansing compns. contg. surfactants and cellulose ethers)
- IT **Surfactants**  
(nonionic, cleansing compns. contg. surfactants and cellulose ethers)
- IT Alcohols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(polyhydric, cleansing compns. contg. surfactants and cellulose ethers)
- IT Siloxanes and Silicones, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(quaternary ammonium group-contg., cleansing compns. contg. surfactants and cellulose ethers)
- IT Fats and Glyceridic oils  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(shea butter, ethoxylated; cleansing compns. contg. surfactants and cellulose ethers)
- IT **Surfactants**  
(zwitterionic, cleansing compns. contg. surfactants and cellulose ethers)

IT 50-70-4, D-Sorbitol, biological studies 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol, biological studies 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers 137-16-6, Sodium lauroyl sarcosinate 147-85-3, Proline, biological studies 9004-34-6D, Cellulose, ethers 9004-82-4, Sodium laureth-3 sulfate 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 26062-79-3, Dimethyldiallylammonium chloride homopolymer 28874-51-3 52504-24-2, Softigen 767 53694-17-0 **55008-57-6**, Gafquat 755N 81859-24-7 180032-23-9, Polysurf 67  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing compns. contg. surfactants and cellulose ethers)

L71 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1995:640707 Document No. 123:35830 Preventing water spots during drying of surfaces after cleaning and rinsing. Molz, Thomas; Hecht, Gaby (Henkel KGaA, Germany). Ger. Offen. DE 4323638 A1 19950119, 6 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1993-4323638 19930715.

AB A neutralized or quaternized copolymer of .gtoreq.1 N-free vinyl monomer and .gtoreq.1 monomer selected from tertiary amino group-contg. monomers, diallylamine, and 2- or 4-vinylpyridine is added to rinse water to prevent water spots during drying of glass, plastics, painted surfaces, etc., after cleaning and rinsing. A copolymer prep'd. from dimethylaminoethyl methacrylate and Me acrylate and neutralized with H3PO4 was added to rinse water.

IT **31229-25-1D**, Dimethylaminoethyl methacrylatemethyl acrylate copolymer, salts

RL: NUU (Other use, unclassified); USES (Uses)

(in rinse water for preventing water spots during drying of washed surfaces)

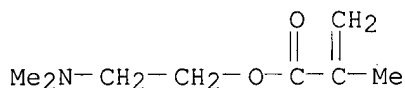
RN 31229-25-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

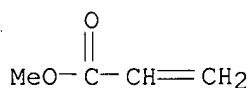
CMF C8 H15 N O2



CM 2

CRN 96-33-3

CMF C4 H6 O2



IC ICM C11D003-37

ICA C08F220-36; C08F226-04; C08F226-06; B60S003-04

ICI C11D003-37, C11D001-66, C11D003-20  
 CC 46-4 (Surface Active Agents and Detergents)  
 IT 25066-99-3D, Dimethylaminoethyl methacrylateethyl acrylate copolymer, salts 26222-42-4D, Dimethylaminoethyl methacrylate-methyl methacrylate copolymer, salts 31229-25-1D, Dimethylaminoethyl methacrylatemethyl acrylate copolymer, salts 127418-85-3D, salts 129557-99-9D, salts 160807-99-8D, salts  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (in rinse water for preventing water spots during drying of washed surfaces)

L71 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
 1995:331030 Document No. 122:128049 Extender containing polymer compositions and uses. Diebold, Eric; Rapkin, Myron; Azhar, Abol; Usmani, Arthur (Boehringer Mannheim G.m.b.H., USA). PCT Int. Appl. WO 9425622 A1 19941110, 22 pp. DESIGNATED STATES: W: JP; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US4407 19940421. PRIORITY: US 1993-52485 19930423.

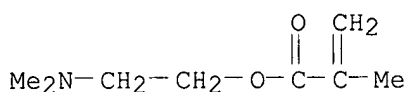
AB The invention relates to polymeric compns. useful in analyte detn. The compns. contain a polymer, a reagent system for analyte detn., and an extender. The last component alleviates tackiness in the compn., and thus reduces damage in prepn. of test app. such as a test strip for glucose detn. Mica is the particularly preferred extender.

IT 26222-39-9 83243-02-1, N,N-Dimethylaminoethyl methacrylate-glycidyl methacrylate-styrene copolymer  
 RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (extender contg. polymer compns. for use in anal. test strips)

RN 26222-39-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

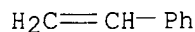
CM 1

CRN 2867-47-2  
 CMF C8 H15 N O2



CM 2

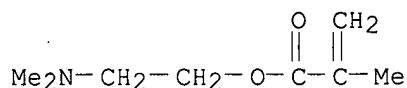
CRN 100-42-5  
 CMF C8 H8



RN 83243-02-1 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

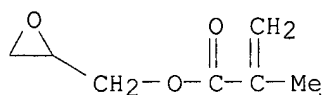
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2



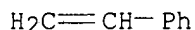
CM 2

CRN 106-91-2  
CMF C7 H10 O3



CM 3

CRN 100-42-5  
CMF C8 H8



- IC ICM C12Q001-28  
ICS C12Q001-00; G01N033-53; G01N021-00; G01N031-22; G01N033-566;  
G01N033-544; C08L075-00
- CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 14, 80
- IT **Enzymes**  
RL: ARG (Analytical reagent use); CAT (Catalyst use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(extender contg. polymer compns. for use in anal. test strips)
- IT 9000-92-4, **Amylase** 9001-08-5, Choline esterase 9001-34-7,  
Galactosidase 9001-37-0, Glucose oxidase 9001-78-9 9003-99-0,  
Peroxidase 9013-05-2, Phosphatase 9013-79-0, Esterase 9026-00-0,  
Cholesterol esterase 9028-14-2, Glycerol dehydrogenase 9028-76-6,  
Cholesterol oxidase 9035-73-8, Oxidase 9035-82-9, Dehydrogenase  
RL: ARG (Analytical reagent use); CAT (Catalyst use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
(extender contg. polymer compns. for use in anal. test strips)
- IT 75-01-4, Vinyl chloride, analysis 105-38-4, Vinyl propionate 107-98-2,  
1-Methoxy 2-propanol 108-78-1, 1,3,5-Triazine-2,4,6-triamine, analysis  
151-21-3, Sodium dodecyl sulfate, analysis 1318-94-1, Muscovite  
2386-53-0, Sodium dodecyl sulfonate 7718-54-9, Nickel chloride, analysis  
7785-87-7, Manganese sulfate 9000-07-1, Carrageenan 9002-93-1, Triton  
X 100 9003-01-4, Polyacrylic acid 9003-08-1 9003-20-7 9003-39-8,  
Polyvinylpyrrolidone 9003-55-8, Butadiene-styrene copolymer 9005-32-7,  
Alginic acid 9010-92-8 9011-05-6 9016-45-9, Igepal CO-530  
10149-15-2 24937-78-8 24981-13-3, Acrylamide-styrene copolymer  
24981-13-3D, Acrylamide-styrene copolymer, methylolated 25014-41-9  
25085-34-1, Acrylic acid-styrene copolymer 25086-29-7,  
Styrene-vinylpyrrolidone copolymer 25155-30-0, Sodium

dodecylbenzenesulfonate 25167-42-4, Glycidyl methacrylate-styrene copolymer 25584-67-2, Glycidyl methacrylate-methacrylic acid copolymer 25917-35-5, Hexanol 26007-37-4 **26222-39-9** 26425-83-2 26428-43-3, Butyl acrylate-glycidyl methacrylate-styrene copolymer 26588-79-4 26589-43-5, Acrylamide-methacrylic acid-styrene copolymer 27812-47-1 30425-01-5 30999-44-1 31475-26-0 33031-80-0 52858-80-7 55492-07-4, Butyl methacrylate-glycidyl methacrylate-styrene copolymer 60558-89-6, Glycidyl methacrylate-methyl acrylate-styrene copolymer 64882-06-0, Divinylbenzene-glycidyl acrylate-styrene copolymer 66251-30-7, Glycidyl methacrylate-vinyltoluene copolymer **83243-02-1**, N,N-Dimethylaminoethyl methacrylate-glycidyl methacrylate-styrene copolymer 83243-03-2 83383-99-7 83384-00-3 83384-02-5 88717-10-6 97586-38-4 160696-19-5 160696-20-8 160696-21-9 160696-22-0 160696-23-1 160696-24-2 160696-25-3 160696-26-4 160696-27-5 160696-28-6 160903-58-2, Ucar 464  
 RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)  
 (extender contg. polymer compns. for use in anal. test strips)

L71 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1994:521638 Document No. 121:121638 Electrostatographic liquid developer. Horie, Seiji; Sano, Kenji; Suzuki, Nobuo; Watarai, Osamu (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 05188657 A2 19930730 Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-20786 19920110.

AB The title pos.-charging electrostatog. liq. developer is a dispersion of insol. resin particles in a nonaq. solvent obtained by polymg. a monomer(s) in the presence of a nonaq. solvent-sol. dispersion-stabilizing resin based on a graft copolymer obtained from a macromer prepd. by reacting the carboxyl group terminating a polymer chain with an epoxy compd. contg. a polymerizable double bond using a **quaternary ammonium** salt as catalyst. The toner image obtained with the title toner is resistant to etching solns. and can be used to obtain printing plates.

IT **50862-66-3**, Dimethylaminoethyl methacrylatemethyl acrylatemethyl methacrylate copolymer  
 RL: USES (Uses)

(latex, electrophotog. liq. developer from)

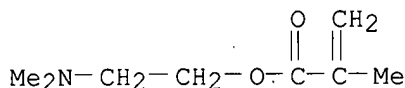
RN 50862-66-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-methyl-2-propenoate and methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

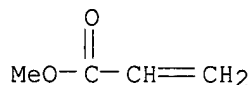
CMF C8 H15 N O2



CM 2

CRN 96-33-3

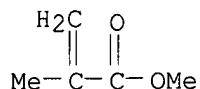
CMF C4 H6 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



IC ICM G03G009-13

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9011-87-4, Methyl acrylatemethyl methacrylate copolymer 25608-33-7,  
 Butyl methacrylatemethyl methacrylate copolymer 25685-29-4, Ethyl  
 methacrylatemethyl methacrylate copolymer 50862-66-3,  
 Dimethylaminoethyl methacrylatemethyl acrylatemethyl methacrylate  
 copolymer

RL: USES (Uses)

(latex, electrophotog. liq. developer from)

L71 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1994:137738 Document No. 120:137738 Water-soluble polymers for preventing  
 filming and spotting by **detergent compositions**.  
 Adler, David Elliott; Shulman, Jan Edward; McCallum, Thomas Francis, III;  
 Weinstein, Barry (Rohm and Haas Co., USA). Eur. Pat. Appl. EP 560519 A2  
 19930915, 16 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB,  
 GR, IE, IT, LI, LU, MC, NL, PT, SE. (English). CODEN: EPXXDW.  
 APPLICATION: EP 1993-301511 19930226. PRIORITY: US 1992-848908 19920310;  
 US 1992-848802 19920310.

AB The title polymers, esp. useful in automatic **dishwasher**  
**detergents**, comprise copolymers of 30-95% monounsaturated. C3-6  
 carboxylic acids or their alkali metal or ammonium salts, 5-50%  
 $\text{H}_2\text{C}:\text{CR}_1\text{COACH}_2\text{CR}_2\text{R}_3(\text{CH}_2)_m\text{NR}_4\text{R}_5$  and/or  $\text{H}_2\text{C}:\text{CR}_1\text{COACH}_2\text{CR}_2\text{R}_3(\text{CH}_2)_m\text{N}^+\text{R}_4\text{R}_5\text{R}_6 \text{X}^-$   
 (R1 = H, Me; A = O, NH; R2-6 = H, C1-4 alkyl; R2R3, R4R5 = C3-7 aliph.  
 ring-completing group; m = 0-2; X = halo, OH, AcO, etc.), and, optionally,  
 3-25% copolymerizable unsaturated monomers. An 80:20 acrylic  
 acid- $\text{H}_2\text{C}:\text{CHCONH}(\text{CH}_2)_3\text{NMe}_2$  copolymer was used (4%) in a **dishwasher**  
**detergent** contg. Na citrate, zeolite, perborate tetrahydrate,  
 silicate, surfactant, and Na2SO4.

IT 26182-93-4 26655-25-4 34606-37-6

52397-71-4 153452-41-6

RL: TEM (Technical or engineered material use); USES (Uses)

(filming and spotting inhibitors, in **dishwasher**  
**detergents**)

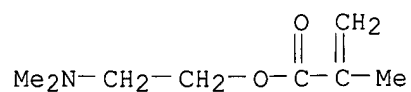
RN 26182-93-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 ethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

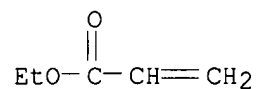
CMF C8 H15 N O2



CM 2

CRN 140-88-5

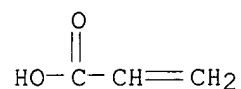
CMF C5 H8 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



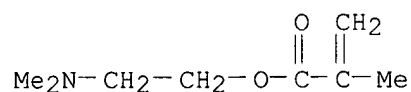
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

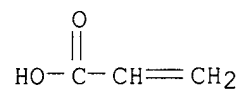
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



RN 34606-37-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with

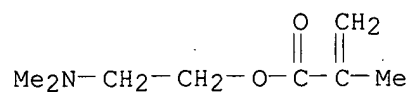


ethenylbenzene and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

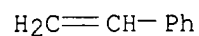
CMF C8 H15 N O2



CM 2

CRN 100-42-5

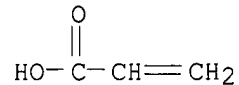
CMF C8 H8



CM 3

CRN 79-10-7

CMF C3 H4 O2



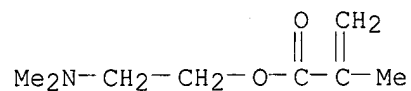
RN 52397-71-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with butyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

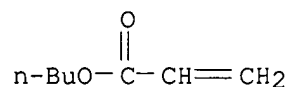
CMF C8 H15 N O2



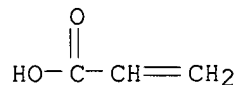
CM 2

CRN 141-32-2

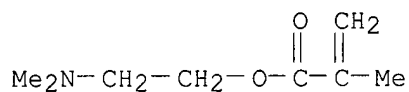
CMF C7 H12 O2



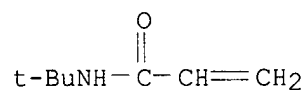
CM 3

CRN 79-10-7  
CMF C3 H4 O2RN 153452-41-6 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
N-(1,1-dimethylethyl)-2-propenamide and 2-propenoic acid (9CI) (CA INDEX  
NAME)

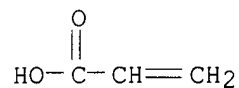
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2

CM 2

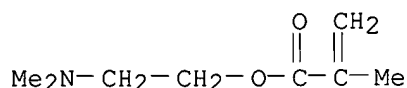
CRN 107-58-4  
CMF C7 H13 N O

CM 3

CRN 79-10-7  
CMF C3 H4 O2IC ICM C11D003-37  
CC 46-6 (Surface Active Agents and Detergents)

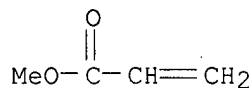
- ST carboxy polymer detergent spotting inhibitor; acrylic polymer detergent spotting inhibitor; amine polymer detergent spotting inhibitor; **dishwasher detergent** spotting inhibitor polymer; filming inhibitor detergent carboxy polymer; **quaternary ammonium** polymer **detergent dishwasher**; ammonium polymer spotting inhibitor detergent
- IT **Detergents**  
(**dishwashing**, filming and spotting inhibitors for, polymers as)
- IT Carboxylic acids, polymers  
**Quaternary ammonium** compounds, polymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymers, filming and spotting inhibitors, in **dishwasher detergents**)
- IT 26182-93-4 26655-25-4 34606-37-6  
52397-71-4 55972-66-2 83064-23-7 87079-26-3 87112-42-3  
93445-97-7 95734-95-5 115417-36-2 127738-99-2 131479-66-8  
142175-66-4 153452-39-2 153452-40-5 **153452-41-6**  
153452-42-7 153452-43-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(filming and spotting inhibitors, in **dishwasher detergents**)
- L71 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1993:555106 Document No. 119:155106 Piezoelectric pH sensors: AT-cut quartz resonators with amphoteric polymer films. Wang, Juan; Ward, Michael D.; Ebersole, Richard C.; Foss, Robert P. (Dep. Chem. Eng. Mater. Sci., Univ. Minnesota, Minneapolis, MN, 55455, USA). Anal. Chem., 65(19), 2553-62 (English) 1993. CODEN: ANCHAM. ISSN: 0003-2700.
- AB Piezoelec. AT-cut quartz resonators immersed in aq. media, coated with crosslinked films of the random copolymer- $\{[CH_2CH(CO_2H)]_a-[CH_2CH(CO_2CH_3)]_b-[CH_2CH(CO_2CH_2CH_2NMe_2)]_c\}_n$ , exhibit large frequency changes when the pH is changed in the vicinity of the isoelec. point of the polymer film. The frequency changes are attributed to changes in the viscoelastic properties of the films that occur during phase transitions between the isoelec. form and the cationic polymer (1-NMe<sub>2</sub>H<sup>+</sup>) present at low pH or the anionic polymer (1-CO<sub>2</sub><sup>-</sup>) present at high pH. These phase transitions are accompanied by dramatic changes in acoustic energy attenuation, film thickness changes, and film surface energy, as indicated by acoustic impedance anal., phase measurement interferometric microscopy, and contact angle measurements. The results are consistent with pH-dependent segregation of the isoelec. and ionic phases within the bulk and between the bulk and the surface. The unique pH-sensing capabilities of the coated resonators, combined with their robustness, ease of fabrication, and low cost, provide a convenient approach for the measurement of "threshold" pH changes. Real-time measurements of **enzymic** activity and microbe metab. are demonstrated as examples of potential applications of these sensors.
- IT **50862-66-3DP**, hydrolyzed, polymers with pentaerythritol triacrylate  
RL: RCT (Reactant); PREP (Preparation)  
(prepn. and crosslinking of, for amphoteric film in piezoelec. pH sensor)
- RN 50862-66-3 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-methyl-2-propenoate and methyl 2-propenoate (9CI) (CA INDEX NAME)
- CM 1

CRN 2867-47-2  
CMF C8 H15 N O2



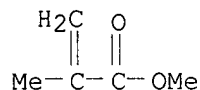
CM 2

CRN 96-33-3  
CMF C4 H6 O2



CM 3

CRN 80-62-6  
CMF C5 H8 O2



CC 9-1 (Biochemical Methods)  
Section cross-reference(s): 7, 76, 79

IT **Enzymes**

RL: ANST (Analytical study)

(pH changes in reactions of, detn. of, piezoelec. pH sensor for)

IT 3524-68-3DP, polymers with hydrolyzed Me acrylate, Me methacrylate, (dimethylamino)ethylmethacrylate copolymer **50862-66-3DP**, hydrolyzed, polymers with pentaerythritol triacrylate

RL: RCT (Reactant); PREP (Preparation)

(prepn. and crosslinking of, for amphoteric film in piezoelec. pH sensor)

L71 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1993:164747 Document No. 118:164747 Paramagnetic polymer microparticles coupled to biologically active substances. Wang, Chao Huei J.; Shah, Dinesh O. (Baxter Diagnostics Inc., USA). PCT Int. Appl. WO 9222201 A1 19921223, 52 pp. DESIGNATED STATES: W: AU, CA, JP; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1992-US4995 19920615. PRIORITY: US 1991-716144 19910617.

AB A paramagnetic microparticle comprising an inner polymeric core particle of 1-100.mu.m diam. and an external polymeric layer polymd. at the surface of said core particle contg. metal oxide crystal agglomerated with an metal oxide ppt. into nonuniformly sized clusters of .ltoreq. 1.0.mu.m. The microparticles can be used for passive or covalent coupling of biol. material such as antigens, antibodies, **enzymes** and used as solid phase for various types of immunoassays or other medical diagnostic applications. Polystyrene particles were coated with a layer of

crosslinked carboxylated polystyrene contg. Fe<sub>2</sub>O<sub>3</sub> and FeO (prepn. is given). Goat antimouse IgG was coupled to above particles to obtain goat antimouse IgG coated magnetic particles.

IT 26222-39-9

RL: ANST (Analytical study)

(paramagnetic polymer microparticles manuf. with metal oxides and)

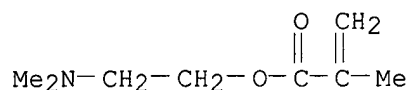
RN 26222-39-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

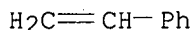
CMF C8 H15 N O2



CM 2

CRN 100-42-5

CMF C8 H8



IC A01N001-02; A61K043-00; A61K049-00; A61M036-14; B03C001-30; B01D035-06; C08B037-02; C07H015-00; C07H017-00; C12N001-02; C12Q001-00; C12Q001-44; G01N001-54; G01N031-00; G01N033-48; G01N033-53; G01N033-536; G01N033-545; G01N033-546

CC 9-15 (Biochemical Methods)

Section cross-reference(s): 15, 38, 63

IT 9003-53-6, Polystyrene 25086-29-7 25655-01-0 26010-51-5  
26222-39-9 26222-42-4 26355-01-1 32457-32-2 52640-08-1  
59419-40-8 79704-32-8 99755-04-1 135928-42-6 146873-65-6

RL: ANST (Analytical study)

(paramagnetic polymer microparticles manuf. with metal oxides and)

L71 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1991:478621 Document No. 115:78621 **Cleansing compositions**

without irritating effects on the skin and hair. Yahagi, Kazuyuki; Kameda, Takuro; Igarashi, Sahoko (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 02218797 A2 19900831 Heisei, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-40080 19890220.

AB A cleansing cosmetic contains a mixt. of a amidoamine-type amphoteric **surfactant** and a sulfosuccinic acid **surfactant**, optionally, a cationic polymer (and/or a branched **quaternary ammonium salt**). The cosmetic produces **foams** and good cleansing actions, and is compatible to the skin and hair. The Markush structures of the amidoamine **surfactants** and sulfosuccinic acid-type **surfactants** are given. A **cleanser** consisted of N-lauroyl-N'-carboxymethyl-N'-(2-hydroxyethyl)ethylenediamine Na salt 10, disodium laurylsulfosuccinate 10, and H<sub>2</sub>O 80% by wt.

IT 55008-57-6

RL: BIOL (Biological study)

(cosmetic cleansing compn. contg.)

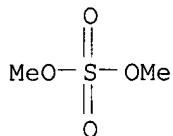
RN 55008-57-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone, compd. with dimethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1

CMF C2 H6 O4 S



CM 2

CRN 30581-59-0

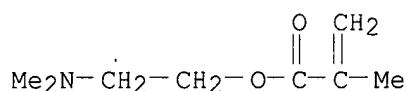
CMF (C8 H15 N O2 . C6 H9 N O) x

CCI PMS

CM 3

CRN 2867-47-2

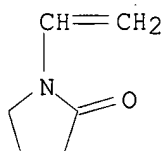
CMF C8 H15 N O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



IC ICM C11D001-65

ICS A61K007-075

ICI C11D001-65, C11D001-28, C11D001-52, C11D003-37, C11D001-62

CC 62-4 (Essential Oils and Cosmetics)

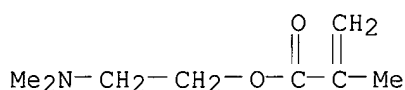
Section cross-reference(s): 46

ST cleansing cosmetic anionic amphoteric **surfactant**;**shampoo surfactant** mixt amidoamine sulfosuccinateIT **Detergents****Shampoos**

- (amidoamine amphoteric **surfactant** and sulfosuccinate anionic **surfactant** combination for)
- IT **Quaternary ammonium** compounds, biological studies  
RL: BIOL (Biological study)  
(cosmetic **cleansing compn.** contg.)
- IT Cosmetics  
(cleansing, amidoamine amphoteric **surfactant** and sulfosuccinate anionic **surfactant** combination for)
- IT 9005-25-8, Starch, biological studies 14933-03-0D, polyoxyethylene cocoalkyl derivs., mixt. with N-myristoyl-N'-carboxymethyl-N'-(2-hydroxyethyl)ethylenediamine **55008-57-6** 62281-04-3  
81859-24-7, Polymer JR 103807-17-6, 2-Decyltetradecyltrimethylammonium chloride 103807-18-7, 2-Dodecylhexadecyltrimethylammonium chloride 108464-53-5, Maquat 550 116826-52-9D, mixt. with polyoxyethylene alkylsulfosuccinate disodium salt 133876-32-1D, mixt. with N-cocoyl-N'-carboxymethyl-N'-(2-hydroxyethyl)ethylenediamine 134003-18-2 134451-33-5D, mixt. with polyoxyethylene cocoacyl sulfosuccinates 135272-45-6  
RL: BIOL (Biological study)  
(cosmetic **cleansing compn.** contg.)
- IT 134003-17-1 135272-41-2 135272-42-3 135272-43-4 135272-44-5 135413-97-7  
RL: BIOL (Biological study)  
(cosmetic **cleansing compns.** contg.)
- L71 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1987:521132 Document No. 107:121132 Polymeric compositions for the immobilization of biologically active substances. (Battelle Memorial Institute, USA). Jpn. Kokai Tokkyo Koho JP 62022864 A2 19870131 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-169946 19860721. PRIORITY: CH 1985-3164 19850722.
- AB Photopolymer compns. are described for producing carriers for biol. active substances such as **enzymes**, hormones, heparin, etc. Acrylic acid 10, dimethylaminoethyl methacrylate 22, dimethylacrylamide 20, 2-hydroxyethyl acrylate 40, and Uvecryl P-36 (a photoinitiator) 1 g were mixed (viscosity, about 300 cP at 25.degree.), applied to a glass plate, and irradiated in air from a UV lamp at 30 W/cm from 30 cm distance, to give a film in 30 s.
- IT **110017-28-2P 110017-29-3P 110115-85-0P**  
RL: PREP (Preparation)  
(prepn. of, for immobilization of biol. reactive substances in pharmacol.)
- RN 110017-28-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with N,N-dimethyl-2-propenamide, 2-hydroxyethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

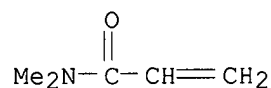
CM 1

CRN 2867-47-2  
GMF C8 H15 N O2



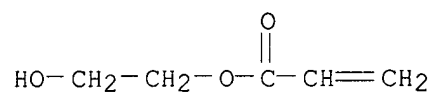
CM 2

CRN 2680-03-7  
CMF C5 H9 N O



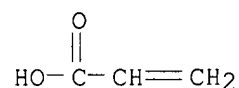
CM 3

CRN 818-61-1  
CMF C5 H8 O3



CM 4

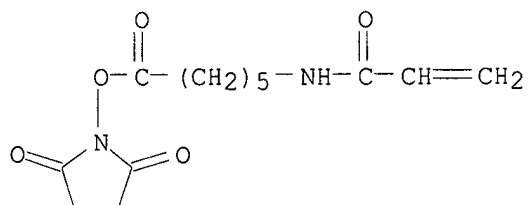
CRN 79-10-7  
CMF C3 H4 O2



RN 110017-29-3 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
N,N-dimethyl-2-propenamide, N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-  
oxohexyl]-2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

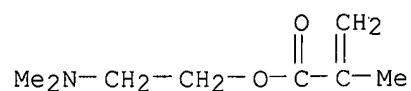
CRN 63392-86-9  
CMF C13 H18 N2 O5



CM 2

CRN 2867-47-2  
CMF C8 H15 N O2

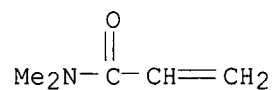




CM 3

CRN 2680-03-7

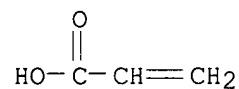
CMF C5 H9 N O



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 110115-85-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] di-2-propenoate,  
oxiranylmethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

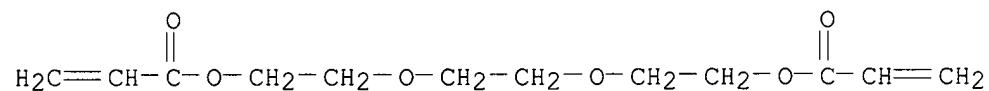
CM 1

CRN 42978-66-5

CMF C15 H24 O6

CCI IDS

CDES \*

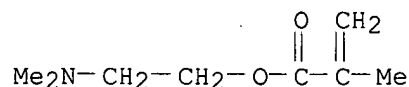


3 ( D1-Me )

CM 2

CRN 2867-47-2

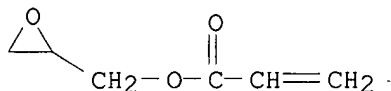
CMF C8 H15 N O2



CM 3

CRN 106-90-1

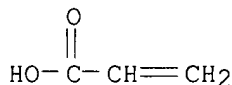
CMF C6 H8 O3



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC ICM C09D003-80

ICA C08F002-50; C08F220-06; C08F220-34

CC 63-7 (Pharmaceuticals)

IT Pharmaceuticals

**Enzymes**

RL: PROC (Process)

(immobilization of, for medical goods)

IT 110017-28-2P 110017-29-3P 110115-84-9P

110115-85-0P 110115-86-1P 110170-41-7P

RL: PREP (Preparation)

(prepn. of, for immobilization of biol. reactive substances in pharmacol.)

L71 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1985:205788 Document No. 102:205788 **Cleaning compositions**

for machinery. (Kao Corp., Japan; Nippon Kokan K. K.). Jpn. Kokai Tokkyo Koho JP 59232199 A2 19841226 Showa, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-108382 19830616.

AB The title compns. contain water-sol. polymers such as cationic or amphoteric polycondensates or their salts **contg.** basic or **cationic** N, anionic polycondensates or their salts **contg.** amide groups, and olefin-maleic acid copolymer salts, (meth)acrylic acid polymer salts, or acrylamidoalkanesulfonic acid polymers. Thus, a cleaning agent for cold drawn steel **contg.** 10,000 ppm 4:1 (dimethylamino)ethyl methacrylate ethylphosphonate-Na 2-acrylamido-2-methylpropanesulfonate copolymer [91380-14-2] had better detergency than did a mixt. of polyoxyethylene lauryl ether 49, polyoxyethylene nonylphenyl ether 49, and silicone defoamer 2%.

IT 86888-55-3 96397-73-8

RL: TEM (Technical or engineered material use); USES (Uses)

(cleaning compns., for machines)

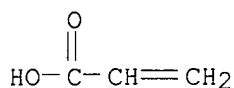
RN 86888-55-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, hydroxyacetate,  
polymer with sodium 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na



● Na

CM 2

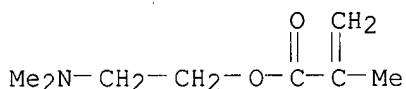
CRN 86888-54-2

CMF C8 H15 N O2 .. C2 H4 O3

CM 3

CRN 2867-47-2

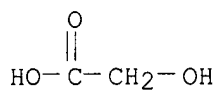
CMF C8 H15 N O2



CM 4

CRN 79-14-1

CMF C2 H4 O3



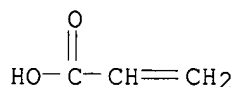
RN 96397-73-8 HCAPLUS

CN Phosphinous acid, diethyl-, compd. with 2-(dimethylamino)ethyl  
2-methyl-2-propenoate (1:1), polymer with sodium 2-propenoate (9CI) . (CA  
INDEX NAME)

CM 1

CRN 7446-81-3

CMF C3 H4 O2 . Na



● Na

CM 2

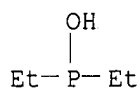
CRN 96397-72-7

CMF C8 H15 N O2 . C4 H11 O P

CM 3

CRN 83992-88-5

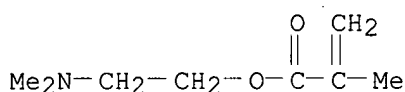
CMF C4 H11 O P



CM 4

CRN 2867-47-2

CMF C8 H15 N O2



IC ICM C11D007-22

CC 46-6 (Surface Active Agents and Detergents)

Section cross-reference(s): 55

ST machinery **cleaning compn**; methacrylate copolymer**cleaning compn**; acrylamidoisobutanesulfonate copolymer**cleaning compn**; sulfonate copolymer **cleaning****compn**; phosphonate salt copolymer **cleanser**

IT Machinery

(cleaning compns. for, contg. water-sol. polymers)

IT Fatty acids, polymers

RL: USES (Uses)

(dimers, polymers with diethylenetriamine salts, **cleaning****compns.** for machines)

IT Polymers, uses and miscellaneous

RL: USES (Uses)

(water-sol., **cleaning compns.**, for machines)

IT Detergents

(cleaning compns., polymers, water-sol., for machinery)

IT 12597-69-2, uses and miscellaneous

RL: USES (Uses)

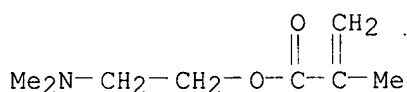
(cleaning compns. for, contg. water-sol. polymers)

- IT 9004-34-6D, cationic derivs., **quaternary ammonium**  
salts 9008-63-3 25549-84-2 52501-07-2 **86888-55-3**  
91365-62-7 91379-82-7D, polymers with dimer acids 91380-05-1  
91380-06-2 91380-07-3 91380-14-2 91380-15-3 91387-89-2  
91422-46-7 95243-19-9 96397-68-1 96397-69-2 96397-70-5  
**96397-73-8** 96398-19-5 96398-21-9 96398-23-1 96419-52-2  
96419-54-4 96474-09-8D, polymers with dimer acids 96474-10-1D,  
polymers with dimer acids  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**cleaning comps.**, for machines)
- L71 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1985:8660 Document No. 102:8660 **Cleaner compositions.**  
(Lion Corp., Japan). Jpn. Kokai Tokkyo Koho JP 59115398 A2 19840703  
Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1982-224640  
19821221.
- AB Title comps. contain 0.01-50 wt.% washing aid comprising tertiary  
amine-contg. water-sol. polymer of group  $(-\text{CH}_2\text{CRR}_1-)_m[-\text{CH}_2\text{C}[\text{CO}_2(\text{CH}_2)_k\text{NR}_3\text{R}_4]\text{R}_2]_n$  (A) or  $(-\text{CH}_2\text{CRR}_1-)_m[-\text{CH}_2\text{C}[\text{OCO}(\text{CH}_2)_k\text{NR}_3\text{R}_4]\text{R}_2]_n$  (B)  
(R = nonionic group; R<sub>1</sub> = H, C1-4 alkyl; R<sub>2</sub> = H, C1-4 alkyl; R<sub>3</sub>, R<sub>4</sub> = C1-4  
alkyl; k = 1-4;  $n/(m+n) = 0.05-1$ ;  $m+n = 20-50,000$ ), or washing aid  
prepd. by coating A or B with inorg. or org. acid salt. The comps. are  
used by adding to com. **cleaners** and provide excellent cleaning  
effects. Thus, 10 parts  $(\text{CH}_2\text{CHONH}_2)_m[\text{CH}_2\text{C}[\text{CO}_2(\text{CH}_2)_2\text{NMe}_2]\text{Me}.1/2\text{H}_2\text{SO}_4]_n$  ( $n/(m+n) = 0.5$ ;  $m+n = 10,000-15,000$ ) [60162-07-4] in 50 parts water was  
mixed with distearyldimethylammonium chloride (I) [107-64-2], and then  
dried to obtain granules (I content 78%, particle size 300-1000 .mu.), 4  
parts of which was mixed with 96 parts com. **cleaner** (comprising  
linear Na alkylbenzenesulfonate 25, zeolite 15, Na<sub>2</sub>SO<sub>4</sub> 45, and water 15  
wt.%) to obtain a **cleaner compn.**
- IT **31229-25-1**  
RL: USES (Uses)  
(**cleaning comps.** contg. **quaternary**  
**ammonium** compds. and)
- RN 31229-25-1 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

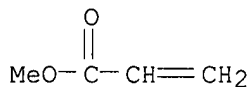
CMF C8 H15 N O2



CM 2

CRN 96-33-3

CMF C4 H6 O2



IC C11D003-00  
 CC 46-6 (Surface Active Agents and Detergents)  
 IT **Detergents**

(cleaning compns., contg. water-sol. acrylic  
 polymers and quaternary ammonium compds.)

IT 25154-86-3 31229-25-1 60162-07-4

RL: USES (Uses)

(cleaning compns. contg. quaternary  
 ammonium compds. and)

IT 107-64-2

RL: USES (Uses)

(cleaning compns. contg. water-sol. acrylic  
 polymers)

L71 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1984:408664 Document No. 101:8664 Dyeing of modified synthetic fibers.

(Toray Industries, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 59043176 A2

19840310 Showa, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP

1982-153826 19820906.

AB Acid-modified synthetic fibers dyed with dichlorotriazine or F-contg.  
 pyrimidine reactive dyes and treated with an alkali have improved  
 washfastness and good hygroscopicity. Thus, a knit from nylon 6 textured  
 yarns was grafted with a liquor contg. 30% (on fiber wt.) acrylic acid for  
 60 min at 90.degree. to give a fabric with carboxy group content 7.2  
 .times. 10<sup>-4</sup> equiv./g. The grafted fabric was dyed with a liquor contg.  
 3% (on fiber wt.) C.I. Reactive Red 86 for 60 min at 100.degree. and  
 treated with aq. 20% (on fiber wt.) Na<sub>2</sub>CO<sub>3</sub> for 30 min at 60.degree. to  
 give a dyed hygroscopic fabric with good leveling and good washfastness.

IT 90570-18-6

RL: USES (Uses)

(fiber, dyeing of, with reactive dyes, washfast)

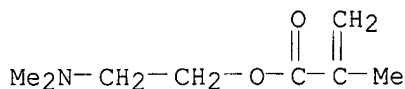
RN 90570-18-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 methyl 2-propenoate, 2-propenenitrile and 2-propenoic acid (9CI) (CA  
 INDEX NAME)

CM 1

CRN 2867-47-2

CMF C8 H15 N O2



CM 2

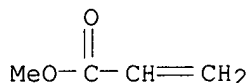
CRN 107-13-1

CMF C3 H3 N



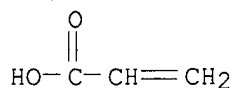
CM 3

CRN 96-33-3  
CMF C4 H6 O2



CM 4

CRN 79-10-7  
CMF C3 H4 O2



IC D06P003-24; D06P001-38; D06P003-70

CC 40-6 (Textiles)

IT **Quaternary ammonium** compounds, uses and miscellaneous

RL: USES (Uses)

(acrylic fibers treatment with, for improved hygroscopicity)

IT **90570-18-6**

RL: USES (Uses)

(fiber, dyeing of, with reactive dyes, washfast)

L71 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1983:440196 Document No. 99:40196 Improved machine **dishwashing** and **rinsing composition**. Los, Leendert; Gouda, Johannes Hendrikus (Unilever N. V. , Neth.; Unilever PLC). Eur. Pat. Appl. EP 77588 A1 19830427, 14 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1982-201271 19821012. PRIORITY: GB 1981-31205 19811016.

AB Excessive **foaming** of machine **dishwashing** and

**rinsing compns.** is prevented by adding polyelectrolytes

and, optionally, anionic **surfactants**. Thus, a rinse aid contg.

a nonionic **surfactant** 10, citric acid 18, Na xylenesulfonate 3, dye 0.006, preservative 0.1, C12H25C6H4SO3Na [25155-30-0] 0.2, Gafquat 734 [53633-54-8] (polyelectrolyte) 2.5, and water 66.2 parts had satisfactory **foaming** at 20-45.degree..

IT **53633-54-8**

RL: USES (Uses)

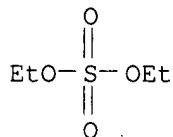
(defoamers, for machine **dishwashing** and **rinsing compns.**)

RN 53633-54-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone, compd. with diethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 64-67-5  
CMF C4 H10 O4 S



CM 2

CRN 30581-59-0

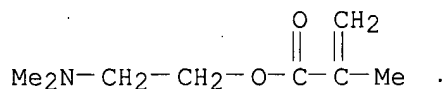
CMF (C8 H15 N O2 . C6 H9 N O)x

CCI PMS

CM 3

CRN 2867-47-2

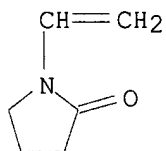
CMF C8 H15 N O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



IC C11D003-37; C11D003-22; C11D003-00

CC 46-6 (Surface Active Agents and Detergents)

ST **dishwashing** mech defoamer; vinylpyrrolidone copolymer defoamer;  
methacrylate copolymer defoamer; dodecylbenzenesulfonate defoamer;  
**quaternary ammonium** polymer defoamerIT Antifoaming agents  
(polyelectrolytes and anionic **surfactants**, for  
**dishwashing** machines)IT **Dishwashing**  
(**rinsing** aids for mech., defoamers for)IT **Detergents**  
(**dishwashing**, for machines, defoamers for)IT 25155-30-0 **53633-54-8**

RL: USES (Uses)

(defoamers, for machine **dishwashing** and **rinsing**  
**compns.**)

L71 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1982:578367 Document No. 97:178367 Multilayer analysis element. (Konishiroku  
Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57101761 A2  
19820624 Showa, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP



1980-179614 19801217.

AB Multilayered test sheets for anal. of body fluids consist of a transparent film layer, a reagent layer, a radiation-blocking layer, and a spreading layer contg. polymer particles with a void rate of 25-85%, which allows the permeation of fluid samples into the reagent layer for anal. Thus, glycidylmethacrylate-styrene particles were prepd. by the reaction of 90 parts styrene with 10 parts glycidylmethacrylate in the presence of 3 parts 2,2-azobis(2,4-dimethylvaleronitrile) as initiator. A transparent polyethylene terephthalate support (180-.mu.m thick) was coated with a reagent layer contg. glucose oxidase, 4-aminoantipyrine-HCl, 1,7-dihydroxynaphthalene, peroxidase, 5,5-dimethyl-1,3-cyclohexadione, 6-amino-4,5-dihydroxy-2-methylpyrimidine, 3,3-dimethylglutaric acid, and deionized gelatin, a radiation-blocking layer contg. TiO<sub>2</sub>, Triton X 100, and acrylamide-ethylacryloyl acetate copolymer, and a spreading layer contg. glycidylmethacrylate-styrene copolymer particles (.apprx.20-.mu.m diam., 15.0 g/dm<sup>2</sup>) and Surfactant 10G (0.3 g/dm<sup>2</sup>). Blood serum or std. glucose solns. (10 .mu.L) were applied to the spreading layer. After incubation at 37.degree. for 10 min, reflection was measured on the support side of the film to det. glucose concns.

IT 83243-02-1

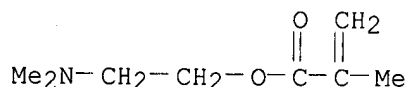
RL: ANST (Analytical study)  
(multilayered test strips contg., for glucose detn. in serum)

RN 83243-02-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

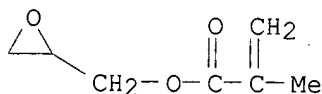
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2



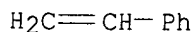
CM 2

CRN 106-91-2  
CMF C7 H10 O3



CM 3

CRN 100-42-5  
CMF C8 H8



IC G01N031-22; G01N021-75  
CC 9-5 (Biochemical Methods)  
ST serum glucose multilayered test sheet; **enzymic** test strip  
fetoprotein glucose; color test strip fetoprotein glucose; fetoprotein  
detn serum test strip  
IT 9010-92-8 25167-42-4 26588-79-4 55492-07-4 **83243-02-1**  
83383-99-7 83384-00-3 83384-02-5 83384-04-7  
RL: ANST (Analytical study)  
(multilayered test strips contg., for glucose detn. in serum)

L71 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1982:559156 Document No. 97:159156 Multilayer analytical elements for  
biological fluids analysis. (Konishiroku Photo Industry Co., Ltd., Japan).  
Jpn. Kokai Tokkyo Koho JP 57101760 A2 19820624 Showa, 17 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1980-179613 19801217.

AB A test element for anal. of biol. fluid samples comprises a transparent  
support layer, a reagent layer, a radiation-blocking layer, and a  
spreading layer with void rate of 25-85%, which allows the permeation of  
biol. fluid samples, esp. those with a high viscosity. The porous  
spreading layer is formed by binding of polymer particles which are  
resistant to swelling by the fluid sample. Thus, a transparent  
polyethylene terephthalate film (180-.mu.m thick) was coated with a  
reagent layer contg. glucose oxidase, 4-aminoantipyrine-HCl,  
1,7-dihydroxynaphthalene, peroxidase, 5,5-dimethyl-1,3-cyclohexadione,  
6-amino-4,5-dihydroxy-2-methylpyrimidine, 3,3-dimethylglutaric acid, and  
deionized gelatin, a radiation-blocking layer contg. TiO2, Triton X 100,  
and acrylamide-ethylacryloyl acetate copolymer, and then a spreading layer  
contg. styrene-glycidylmethacrylate copolymer particles (.apprx.20-.mu.m  
diam., 15.0 g/dm3), ethylenediamine (0.01 g/dm2), and Surfactant 10G (0.3  
g/dm2). Std. glucose solns. or blood serum (10 .mu.L) were applied to the  
top layer, and the strips were incubated at 37.degree. for 10 min. After  
incubation, reflection was measured on the support side of the film for  
the detn. of glucose. Styrene-glycidylmethacrylate copolymer particles  
were prep'd. by treatment of 90 parts styrene with 10 parts  
glycidylmethacrylate in the presence of 3 parts 2,2'-azobis(2,4-  
dimethylvaleronitrile).

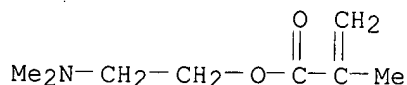
IT **83243-02-1**  
RL: ANST (Analytical study)  
(multilayered test strips contg., for glucose detn. in serum)

RN 83243-02-1 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
ethenylbenzene and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX  
NAME)

CM 1

CRN 2867-47-2

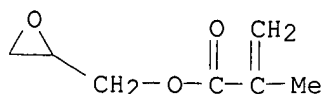
CMF C8 H15 N O2



CM 2

CRN 106-91-2

CMF C7 H10 O3



CM 3

CRN 100-42-5

CMF C8 H8

H<sub>2</sub>C=CH-Ph

IC G01N031-22; G01N021-75

CC 9-5 (Biochemical Methods)

ST serum fetoprotein glucose detn strip; **enzymic** test strip  
 glucose; color test strip fetoprotein glucose; reflection  
 spectrophotometry clin test strip; multilayer test strip body fluid

IT 9010-92-8 25167-42-4 52858-80-7 55492-07-4 **83243-02-1**  
 83243-03-2 83243-04-3

RL: ANST (Analytical study)

(multilayered test strips contg., for glucose detn. in serum)

L71 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1982:533355 Document No. 97:133355 Oily, **foaming** agent with a  
 liquid phase for care of keratin materials and the skin. Grollier, Jean  
 Francois; Allec, Josiane (Oreal S. A. , Fr.). Ger. Offen. DE 3150338 A1  
 19820715, 47 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1981-3150338  
 19811218. PRIORITY: LU 1980-83020 19801219.

AB An oil-contg. **foaming cleanser** for skin and hair  
 contains an oil liq. at ambient temp. 5-85, a **surfactant** sol. in  
 the oil 15-95, a cationic compd. 0.5-10, and H<sub>2</sub>O 0.1-5%. The oil may be  
 plant, animal, or mineral, or synthetic glyceride or fatty acid ester, or  
 fatty alc. The oil-sol. **surfactant** is anionic, with the acid  
 group neutralized with an amine, or nonionic, and (or) alkanolamide. The  
 cationic compd. is a polymer contg. polyamino, polyaminoamide, or  
**quaternary ammonium** groups as part of the polymer chain.  
 Thus, a **shampoo** contained: Texapon WW 99 [83045-95-8] 15,  
 paraffin oil 25, Polymer P1 [68393-49-7] (60% aq. soln.) 3, perfume,  
 antioxidants, and olive oil to 100 g. In use, 20 mL was applied to wet  
 hair, worked in, allowed to stand 10 min, and rinsed to give soft hair  
 that is easily detangled.

IT **30581-59-0**

RL: BIOL (Biological study)

(shampoos contg. oils and)

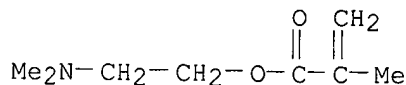
RN 30581-59-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

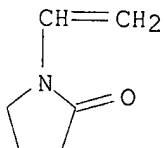
CMF C8 H15 N O2



CM 2

CRN 88-12-0

CMF C6 H9 N O



- IC A61K007-00; A61K007-08; A61K007-48; C11D003-46; A61K007-09; A61K007-13;  
A61K007-135
- CC 62-3 (Essential Oils and Cosmetics)
- ST **shampoo oil surfactant**; cationic compd **shampoo**  
oil
- IT **Quaternary ammonium** compounds, biological studies  
RL: BIOL (Biological study)  
(coco alkyldimethyl(hydroxyethyl), chlorides, **shampoos** contg.  
oils and)
- IT Waxes and Waxy substances  
RL: BIOL (Biological study)  
(jojoba, **shampoos** high in, **surfactants** for)
- IT **Shampoos**  
(oil-high, **surfactants** for)
- IT Olive oil  
Paraffin oils  
Peanut oil  
Rape oil  
RL: BIOL (Biological study)  
(**shampoos** high in, **surfactants** for)
- IT Alcohols, compounds  
RL: BIOL (Biological study)  
(C12-14, ethoxylated, **shampoos** contg. oils and)
- IT Glycerides, biological studies  
RL: BIOL (Biological study)  
(C8-12, **shampoos** high in, **surfactants** for)
- IT Amides, biological studies  
RL: BIOL (Biological study)  
(coco, N,N-bis(hydroxyethyl), **shampoos** contg. oils and)
- IT 107-64-2 25212-19-5 28301-34-0 28826-65-5 **30581-59-0**  
59326-29-3 59407-89-5 61840-27-5 64156-58-7 66091-25-6  
68393-49-7 68518-54-7 73302-80-4 73667-61-5 82970-95-4  
83015-55-8 83016-76-6 83045-95-8 83046-25-7 83046-73-5  
83047-26-1 83060-39-3 83063-38-1 95144-24-4  
RL: BIOL (Biological study)  
(**shampoos** contg. oils and)

L71 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1981:498774 Document No. 95:98774 Adhesive composition for depositing an  
adhesive coating able to fix biofunctional molecules, a substrate covered

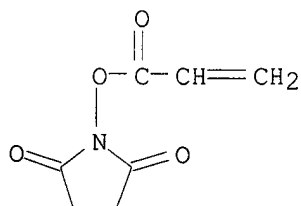
with the coating and its use as a biocatalyst. Schneider, Michel; Chevreux, Pierre; Guillot, Christian (Battelle Memorial Institute, Switz.). Eur. Pat. Appl. EP 29411 19810527, 36 pp. (French). CODEN: EPXXDW. APPLICATION: EP 1980-810349 19801113.

- AB Photopolymerizable compns. contg. acrylic acid (I) and N-acryloyloxysuccinimide (II), 2-hydroxyethyl acrylate, or  $\text{H}_2\text{C}:\text{CHCONHNHCO}_2\text{CMe}_3$  are polymd. on a substrate such as glass or a polyamide film and used to immobilize biofunctional substances. Thus, a mixt. of I 58.4, 2-(dimethylamino)ethyl methacrylate 13, II 26, and benzophenone 2.6% was coated on glass, polymd. in UV light, and treated with trypsin to immobilize trypsin on the polymer coating.
- IT 78810-77-2DP, reaction products with biofunctional substances  
78810-78-3DP, reaction products with biofunctional substances  
78810-79-4DP, reaction products with diisocyanates and biofunctional substances 78810-80-7DP, reaction products with aminobenzamidine and trypsin  
RL: PREP (Preparation)  
(prepn. of)
- RN 78810-77-2 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-[(1-oxo-2-propenyl)oxy]-2,5-pyrrolidinedione and 2-propenoic acid (9CI)  
(CA INDEX NAME)

CM 1

CRN 38862-24-7

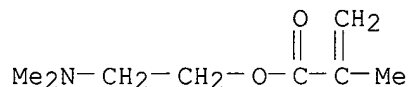
CMF C7 H7 N O4



CM 2

CRN 2867-47-2

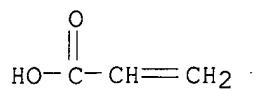
CMF C8 H15 N O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



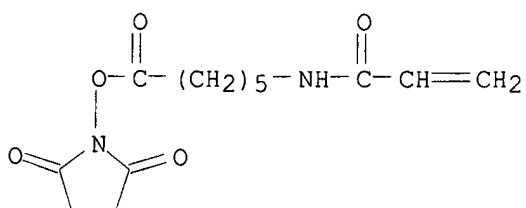
RN 78810-78-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with butyl 2-propenoate, N-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-2-propenamide and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 63392-86-9

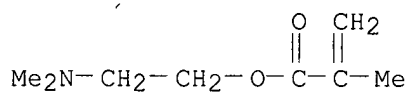
CMF C13 H18 N2 O5



CM 2

CRN 2867-47-2

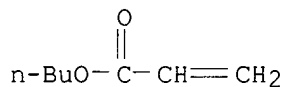
CMF C8 H15 N O2



CM 3

CRN 141-32-2

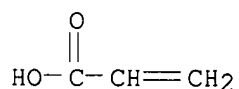
CMF C7 H12 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



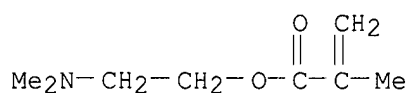
RN 78810-79-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-hydroxyethyl 2-propenoate, 1-methylethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

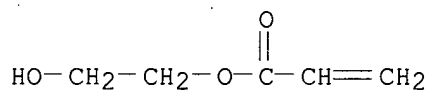
CMF C8 H15 N O2



CM 2

CRN 818-61-1

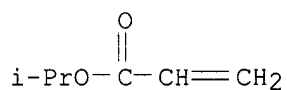
CMF C5 H8 O3



CM 3

CRN 689-12-3

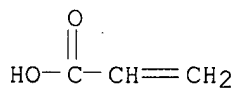
CMF C6 H10 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



RN 78810-80-7 HCAPLUS

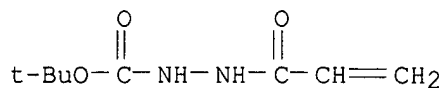
CN Hydrazinecarboxylic acid, 2-(1-oxo-2-propenyl)-, 1,1-dimethylethyl ester,

polymer with butyl 2-propenoate, 2-(dimethylamino)ethyl  
2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 28689-14-7

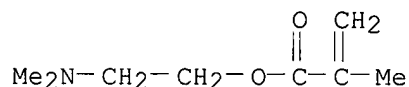
CMF C8 H14 N2 O3



CM 2

CRN 2867-47-2

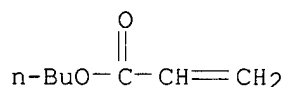
CMF C8 H15 N O2



CM 3

CRN 141-32-2

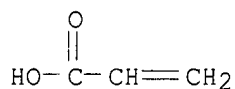
CMF C7 H12 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC C09J003-14; C12N011-08

CC 36-1 (Plastics Manufacture and Processing)

ST acrylic substrate biofunctional compd; **enzyme** immobilization  
polymer substrate; heparin immobilization polymer substrate; glucose  
oxidase immobilization polymer; trypsin immobilization polymer

IT **Enzymes**

RL: PROC (Process)

(immobilization of, on acrylic acid copolymers)

IT 3858-83-1DP, reaction products with acrylic acid copolymers and trypsin

4538-37-8DP, reaction products with acrylic acid copolymers and heparin



26471-62-5DP, reaction products with acrylic acid copolymers and trypsin  
**78810-77-2DP**, reaction products with biofunctional substances  
**78810-78-3DP**, reaction products with biofunctional substances  
**78810-79-4DP**, reaction products with diisocyanates and  
 biofunctional substances **78810-80-7DP**, reaction products with  
 aminobenzamidine and trypsin  
 RL: PREP (Preparation)  
 (prepn. of)

L71 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1981:420863 Document No. 95:20863 Adenosine-5'-triphosphate. (Institute for  
 Production and Development Science, Japan). Jpn. Kokai Tokkyo Koho JP  
 56015697 19810214 Showa, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION:  
 JP 1979-89077 19790712.

AB ATP is prepd. from ADP and creatine phosphate in the presence of  
 immobilized creatine kinase (I). Immobilized I is prepd. with hydrophilic  
 monomers and crosslinking agents. Thus, 150 mg I was added to 30 g of a  
 buffered mixt. (pH 9.0) consisting of N,N-dimethylaminoethylmethacrylate,  
 acrylic acid, and polyethylene glycol (n = 14) dimethacrylate and polymd.  
 in the presence of NH<sub>4</sub> persulfate at 15.degree. for 7 h. A column packed  
 with 0.5 g of the immobilized I continuously produced ATP for >80 h on  
 elution of a phosphate buffer (pH 7.3) contg. ADP 1, creatine phosphate 5,  
 MgCl<sub>2</sub> 10, and L-cysteine 1 mM at 0.16 mL/min. The max. yield of ATP by  
 this method was .apprx.83%.

IT **77756-75-3**

RL: ANST (Analytical study)

(creatine kinase immobilization on, for ATP prepn.)

RN 77756-75-3 HCAPLUS

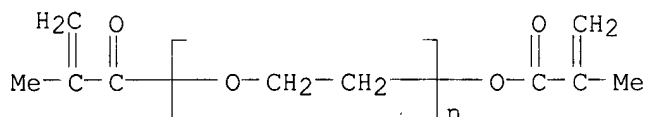
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-[(2-methyl-1-oxo-2-  
 propenyl)oxy]poly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA  
 INDEX NAME)

CM 1

CRN 25852-47-5

CMF (C2 H4 O)n C8 H10 O3

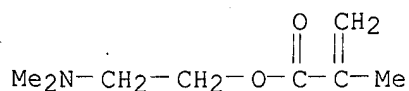
CCI PMS



CM 2

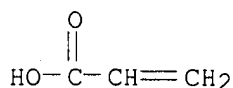
CRN 2867-47-2

CMF C8 H15 N O2



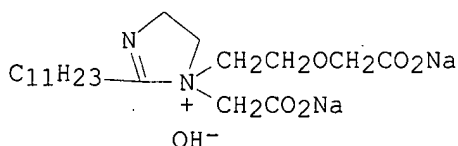
CM 3

CRN 79-10-7  
CMF C3 H4 O2



IC C12P019-32; C12N011-08  
CC 9-6 (Biochemical Methods)  
Section cross-reference(s): 7  
ST ATP prepn **enzymic**; creatine kinase immobilization ATP prodn  
IT **77756-75-3**  
RL: ANST (Analytical study)  
(creatine kinase immobilization on, for ATP prepn.)

L71 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2002 ACS  
1977:47210 Document No. 86:47210 **Shampoo** conditioner formulations.  
Gerstein, Terry (Revlon, Inc., USA). U.S. US 3990991 19761109, 4 pp.  
(English). CODEN: USXXAM. APPLICATION: US 1975-628599 19751104.  
GI



I

AB Aq. **shampoo-conditioner formulations**, having good **cleansing, foaming**, conditioning and detangling properties, contain .apprx.4-25% by wt. amphoteric **surfactant** such as Miranol C2MSF (I) [14350-97-1], 4.5-25% by wt., cryptoanionic **surfactant** [RO(YO)n(CH)2)mCO2H where R is alkyl, Y is ethylene or propylene, n =3-9, m is at least 1] such as Sandopan DTC Acid [56388-96-6] and 0.1-5% by wt. cationic **surfactant**. Thus a compn. contains polymer JR-30M [55466-13-2] (cationic cellulose ether with **quaternary ammonium** group) 0.5, I 15.0, Sandopan DTC Acid 21.0 and water added to 100 wt.%.

IT **37348-62-2 37348-63-3**  
RL: BIOL (Biological study)  
(**shampoo** conditioner contg.)

RN 37348-62-2 HCAPLUS  
RN 37348-63-3 HCAPLUS  
IC C11D001-58  
NCL 252542000  
CC 62-3 (Essential Oils and Cosmetics)  
ST **shampoo conditioner surfactant**  
IT **Shampoos**

(amphoteric, cationic, and cryptoanionic **surfactants** in)  
IT **Quaternary ammonium** compounds, biological studies  
RL: BIOL (Biological study)  
(**shampoo** conditioners contg.)

IT 107-43-7D, coco amido alkyl 107-95-9D, N-coco 122-19-0 14350-97-1  
**37348-62-2 37348-63-3** 51812-80-7 53568-66-4  
55353-19-0 55466-13-2 55819-55-1 56388-96-6 61467-55-8

RL: BIOL (Biological study)  
(shampoo conditioner contg.)

L71 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2002 ACS

1971:32857 Document No. 74:32857 Unsaturated esters containing quaternary ammonium groups, and their polymers. Lewis, Sheldon Noah; Emmons, William D.; Merritt, Richard F. (Rohm and Haas Co.). Ger. Offen. DE 2015762 19701015, 23 pp. (German). CODEN: GWXXBX. PRIORITY: US 19690404.

AB Monomers of formula  $\text{CH}_2:\text{CRCO}_2\text{AN}+\text{Me}_2\text{R}_1 \text{ X-}$ , where R = H or Me, A = C2-6 alkylene,  $\text{R}_1$  = 3-halo-2-hydroxypropyl or 2,3-epoxypropyl, and X = anion, are prep'd. by treating  $\text{CH}_2:\text{CRCO}_2\text{AN}+\text{Me}_2\text{H X-}$  with an epihalohydrin, and are used as comonomers with acrylic monomers to improve dyeability and antistatic properties or polycond. to give paper wet-strength additives, flocculants, and sizing resins. Polymers contg. units derived from these monomers can also be prep'd. by quaternizing (dimethylamino)alkyl acrylate or methacrylate polymers and treating with epihalohydrin. Thus, a soln. of 16 g  $(\text{NH}_4)_2\text{S}_2\text{O}_8$  in 200 g water and a monomer emulsion contg. water 417, 70% aq. polyethylene glycol tert-octylphenyl ether 63, (dimethylamino)ethyl methacrylate 40, and Et acrylate 400 g were gradually added to 2600 g water at a rate to maintain a polymn. temp. of 55-60.degree., giving a dispersion which was mixed with 183 g 37% HCl, and treated with 220 g epichlorohydrin (I). The soln. was dild. to 5% solids with water contg. 14 wt. % NaOH and allowed to stand 3 hr at 25.degree.. Enough of the resulting soln. was added to a bleached kraft pulp to give 1% solids (based on dry wt.) and formed into sheets which had wet strength 2.20-2.52 kg/cm after 1 day and 28 days' storage, resp. Treating the pulp with a I-treated polyamide (Kymene 557) gave a product with wet strength values 1.65 and 2.12, resp.

IT 30662-99-8 31229-25-1

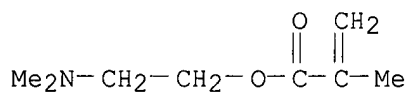
RL: USES (Uses)  
(quaternized, paper strengthening with)

RN 30662-99-8 HCAPLUS

CN Methacrylic acid, 2-(dimethylamino)ethyl ester, polymer with 1-chloro-2,3-epoxypropane and methyl acrylate (8CI) (CA INDEX NAME)

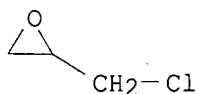
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2

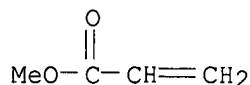


CM 2

CRN 106-89-8  
CMF C3 H5 Cl O



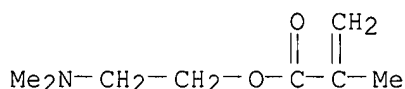
CM 3

CRN 96-33-3  
CMF C4 H6 O2

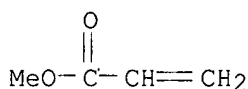
RN 31229-25-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
methyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2  
CMF C8 H15 N O2

CM 2

CRN 96-33-3  
CMF C4 H6 O2

IC C08G

CC 43 (Cellulose, Lignin, Paper, and Other Wood Products)

IT 30662-97-6 30662-98-7 30662-99-8 31229-25-1

31229-26-2 31229-28-4, uses and miscellaneous

RL: USES (Uses)

(quaternized, paper strengthening with)

=&gt; d L73 1-17 cbib abs hitstr hitind

L73 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2002 ACS

2001:477541 Document No. 135:81842 Quaternary cationic polymers and  
**detergents**, cosmetics, and fabric softeners containing them.Miyake, Miyuki; Hidaka, Masato; Kashiwai, Toshiyuki; Toki, Ikuko;  
Yamagata, Yoshifumi (Lion Corp., Japan). Jpn. Kokai Tokkyo Koho JP  
2001181354 A2 20010703, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION:  
JP 1999-373535 19991228.AB The cationic polymers comprise (A) polymerizable monomers having  
quaternary cationic group and (B) polymerizable monomers having  
polyoxyethylene chain and have N content is 0.5-6% of the total wt. of the  
polymer. **Detergent compns.**, cosmetics, and fabric  
softeners contg. the polymers are also claimed. The cationic polymers

form complexes with anionic **surfactants** and the complexes show good conditioning effect in rinsing and form soft film after drying. An EtOH soln. of methacryloyloxyethyltrimethylammonium chloride and CH<sub>2</sub>:CMeCO<sub>2</sub>(CH<sub>2</sub>CH<sub>2</sub>O)<sub>4</sub>Me was treated with 2,2-azobis(2-methylbutyronitrile) at 90.degree. for 6 h to give cationic polymer having N content 3.4%. A **shampoo contg.** the **cationic** polymer was formulated.

IT 109180-56-5P

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of quaternary cationic polymers as conditioners for **detergents** and cosmetics and fabric softeners)

RN 109180-56-5 HCAPLUS

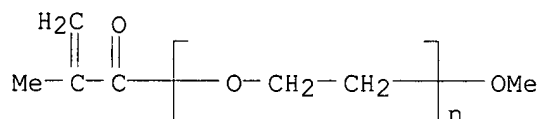
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with .alpha.-(2-methyl-1-oxo-2-propenyl)-.omega.-methoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26915-72-0

CMF (C2 H4 O)<sub>n</sub> C5 H8 O2

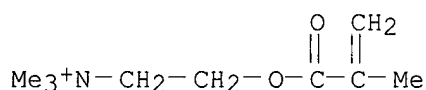
CCI PMS



CM 2

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

IC ICM C08F220-34

ICS A61K007-00; A61K007-48; C08F220-26; C08F226-02; C08F290-06; C08L071-00; C11D001-62; D06M015-267

CC 62-4 (Essential Oils and Cosmetics)

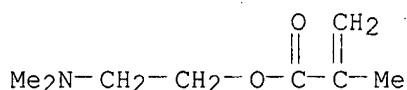
Section cross-reference(s): 46

ST polyoxyethylene acrylate **quaternary ammonium** contg acrylate copolymer **detergent**; cationic polymer nitrogen content **detergent** cosmetic softener

IT **Quaternary ammonium** compounds, biological studies

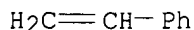
RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

- (polymers; prepn. of quaternary cationic polymers as conditioners for **detergents** and cosmetics and fabric softeners)
- IT Cosmetics  
**Detergents**  
 Fabric softeners  
 Hair preparations  
 (prepn. of quaternary cationic polymers as conditioners for **detergents** and cosmetics and fabric softeners)
- IT **109180-56-5P** 347423-62-5P  
 RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of quaternary cationic polymers as conditioners for **detergents** and cosmetics and fabric softeners)
- L73 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2002 ACS  
 2001:46145 Document No. 134:107969 **Cleanerless** electrophotographic apparatus with improved durability. Okado, Kanetsugu; Mizoe, Marekatsu; Arahira, Fumihiro (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2001013737 A2 20010119, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-186119 19990630.
- AB The invention relates to the **cleanerless** electrophotog. app. which comprises a charging means contg. amino-group-contg. magnetic particles and showing vol. resistivity of 104-109 .OMEGA..cntdot.cm, and a development means contg. nonmagnetic toner and amino-group-contg. spherical magnetic carrier particles. The vol. resistivities of the magnetic carrier and the electrophotog. photoconductor are 1010-1015 and 108-1015 .OMEGA..cntdot.cm, resp.
- IT **26222-39-9**, Dimethylaminoethyl methacrylate-styrene copolymer  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (aminosilane coupling agent on magnetic particle surfaces)
- RN 26222-39-9 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)
- CM 1
- CRN 2867-47-2
- CMF C8 H15 N O2



CM 2

CRN 100-42-5  
 CMF C8 H8



- IC ICM G03G009-113  
 ICS G03G005-147; G03G009-107; G03G015-02; G03G015-08; G03G015-09
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **cleanerless** electrophotog app aminosilane coupling agent  
spherical magnetic carrier

IT Electrophotographic apparatus  
Electrophotographic photoconductors (photoreceptors)  
(magnetic particles for **cleanerless** electrophotog. app. with  
improved durability)

IT Electrophotographic carriers  
(magnetic; magnetic particles for **cleanerless** electrophotog.  
app. with improved durability)

IT 13822-56-5, .gamma.-Aminopropyltrimethoxysilane **26222-39-9**,  
Dimethylaminoethyl methacrylate-styrene copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(aminosilane coupling agent on magnetic particle surfaces)

IT 319913-53-6P, Iron lithium magnesium strontium oxide  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)  
(in magnetic particles for **cleanerless** electrophotog. app.  
with improved durability)

L73 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2002 ACS  
2000:553209 Document No. 133:155134 Cosmetic composition containing an  
anionic and amphoteric **surfactant**, a polyolefin, a cationic  
polymer and a salt or water-soluble alcohol. Restle, Serge; Garnier,  
Nathalie (L'Oreal, Fr.). Eur. Pat. Appl. EP 1025839 A1 20000809, 20 pp.  
DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL,  
SE, MC, PT, IE, SI, LT, LV, FI, RO. (French). CODEN: EPXXDW.  
APPLICATION: EP 2000-400052 20000111. PRIORITY: FR 1999-1239 19990203.

AB The title cosmetic **compn.** for **cleaning** of skin and  
hair is disclosed. A **shampoo** contained sodium lauryl ether  
sulfate 7.5, Dehyton AB30 12.5, isohexadecane 2, Merquat-100 0.4, sodium  
chloride 4, HCl 6, perfume and preservative q.s., and water 100 g.

IT **25154-86-3**, Poly(dimethylaminoethyl methacrylate)  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cosmetic compn. contg. anionic and amphoteric **surfactant**,  
polyolefin, cationic polymer and salt or water-sol. alc.)

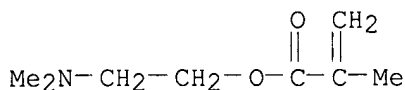
RN 25154-86-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, homopolymer  
(9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

CMF C8 H15 N O2



IC ICM A61K007-50  
ICS A61K007-06; A61K007-02

CC 62-3 (Essential Oils and Cosmetics)

ST cosmetic anionic amphoteric **surfactant** polyolefin polymer

IT Onium compounds  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco  
alkyl imidazolium, inner salts, disodium salts; cosmetic compn. contg.

- anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Polyamides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(amino-contg.; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT **Surfactants**  
(amphoteric; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT **Surfactants**  
(anionic; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Polyelectrolytes  
(**cationic**; cosmetic compn. **contg.** anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Betaines  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(coco alkyldimethyl; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Cosmetics  
**Shampoos**  
Sunscreens  
**Surfactants**  
(cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Acrylic polymers, biological studies  
Alcohols, biological studies  
Ceramides  
Fatty acids, biological studies  
Glycols, biological studies  
Polyolefins  
Polysaccharides, biological studies  
Polysiloxanes, biological studies  
Protein hydrolyzates  
Vitamins  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Glycols, biological studies  
Glycols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(ethers; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Ethers, biological studies  
Ethers, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(glycol; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)



- IT Carboxylic acids, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hydroxy; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Seborrhea  
(inhibitors; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Radicals, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(inhibitors; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Cosmetics  
(moisturizers; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Amines, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(polyamines, nonpolymeric; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT Alcohols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(polyhydric; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT **Quaternary ammonium** compounds, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(polymers; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT 36574-66-0D, N-coco acyl derivs., N-coco acyl derivs.  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(Cocoamidopropyl betaine; cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)
- IT 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 64-17-5, Ethanol, biological studies 67-63-0, Isopropanol, biological studies 71-36-3, Butanol, biological studies 75-65-0, Tert-Butanol, biological studies 81-13-0, Panthenol 1398-61-4, Chitin 9000-30-0, Guar gum 9004-34-6D, Cellulose, **quaternary ammonium** derivs., biological studies 9004-82-4, Sodium lauryl ether sulfate **25154-86-3**, Poly(dimethylaminoethyl methacrylate) 26062-79-3, Merquat-100 26590-05-6, Merquat 550 27306-90-7, Akypo RLM 45 29297-55-0, Vinylimidazole vinylpyrrolidone copolymer 36332-93-1, Methyl 18 eicosanoic acid 60908-77-2, Isohexadecane  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cosmetic compn. contg. anionic and amphoteric **surfactant**, polyolefin, cationic polymer and salt or water-sol. alc.)

L73 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2002 ACS

2000:123255 Document No. 132:170847 Hair rinses containing metallic **soap** microgranules and cationic compounds. Shirasaki, Nariyoshi; Harui, Hitoshi; Sawada, Kohei (Nippon Oil and Fats Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000053541 A2 20000222, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-223783 19980807.

AB A hair **rinse compn.** comprises (1) metallic **soap** microgranules with defined particle size and diam. ratios, (2) cationic **surfactants**, and (3) cationic polymers. The compn. provides natural look hair for hair setting without stickiness. A hair rinse contained Mg stearate granules (av. diam. 0.8 .mu.m) 1, octadecyltrimethylammonium chloride 6, Merquat 100 1, hydroxyethyl cellulose 0.5, propylene glycol 5, glycerin monostearate 2, hexadecyl alc. 3, polyoxyethylene monostearate 1, iso-Pr palmitate 2, XS 65-B3802 (polysiloxane) 3, citric acid 0.1, methylparaben 0.2, propylparaben 0.1, perfumes 0.5, and distd. water q.s. to 100 %.

IT 53633-54-8, Gafquat 734

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair rinses contg. metallic **soap** microgranules and cationic compds.)

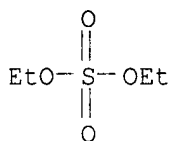
RN 53633-54-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone, compd. with diethyl sulfatate (9CI) (CA INDEX NAME)

CM 1

CRN 64-67-5

CMF C4 H10 O4 S



CM 2

CRN 30581-59-0

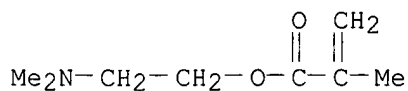
CMF (C8 H15 N O2 . C6 H9 N O)x

CCI PMS

CM 3

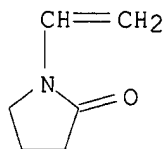
CRN 2867-47-2

CMF C8 H15 N O2



CM 4

CRN 88-12-0  
CMF C6 H9 N O



IC ICM A61K007-08  
CC 62-3 (Essential Oils and Cosmetics)  
ST hair rinse **soap** microgranule cationic compd  
IT **Surfactants**  
(**cationic**; hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT Hair preparations  
(conditioners; hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT Particle size  
(hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT **Soaps**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT **Quaternary ammonium** compounds, biological studies  
**Quaternary ammonium** compounds, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(halides; hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT Halides  
Halides  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(**quaternary ammonium** halides; hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT 81859-24-7  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(Polymer JR 400; hair rinses **contg.** metallic **soap** microgranules and cationic compds.)  
IT 107-64-2, Dioctadecyldimethylammonium chloride 112-03-8, Octadecyltrimethylammonium chloride 557-04-0, Magnesium stearate 557-05-1, Zinc stearate 1336-13-6, Octadecenyltrimethylammonium chloride 1592-23-0, Calcium stearate 17301-53-0, Docosyltrimethylammonium chloride 26062-79-3, Merquat 100 26590-05-6, Merquat 550 **53633-54-8**, Gafquat 734  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(hair rinses **contg.** metallic **soap** microgranules and cationic compds.)

L73 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2002 ACS  
1998:550484 Document No. 129:177236 **Liquid cleaning composition containing polyamine cationic surfactants.** Heinzman, Stephen Wayne; Ingram, Barry Thomas (The

Procter & Gamble Company, USA). PCT Int. Appl. WO 9835006 A1 19980813, 76 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US2462 19980211. PRIORITY: GB 1997-2731 19970211; GB 1997-26894 19971220.

AB The present invention relates to **liq. cleaning compns.** comprising a polyamine **cationic surfactant, contg.** at least one quaternary amine group and at least one primary, secondary or tertiary amine group. The compns. preferably are in the form of aq. or non-aq. **laundry, dishwashing, shampoo or hard-surface cleaning compns.**

IT **30581-59-0D**, Dimethylaminoethyl methacrylate-vinylpyrrolidone copolymer, quaternized **53633-54-8**, Polyquaternium 11  
RL: TEM (Technical or engineered material use); USES (Uses)

(**liq. cleaning compn. contg.**  
polyamine **cationic surfactants**)

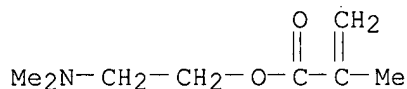
RN 30581-59-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

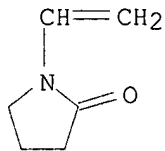
CMF C8 H15 N O2



CM 2

CRN 88-12-0

CMF C6 H9 N O



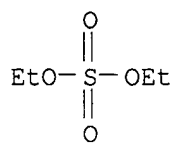
RN 53633-54-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone, compd. with diethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 64-67-5

CMF C4 H10 O4 S

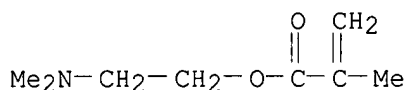


CM 2

CRN 30581-59-0  
CMF (C8 H15 N O2 . C6 H9 N O) x  
CCI PMS

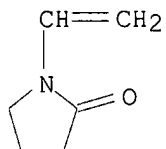
CM 3

CRN 2867-47-2  
CMF C8 H15 N O2



CM 4

CRN 88-12-0  
CMF C6 H9 N O



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IC      ICM      C11D001-40
        ICS      C11D001-42; C11D001-44; C11D001-48; C11D001-62
CC      46-6 (Surface Active Agents and Detergents)
ST      liq cleaning compn polyamine cationic
        surfactant
IT      Quaternary ammonium compounds, uses
        RL: TEM (Technical or engineered material use); USES (Uses)
            (amino; liq. cleaning compn.
            contg. polyamine cationic surfactants)
IT      Cationic surfactants
        Detergents
            (liq. cleaning compn. contg.
            polyamine cationic surfactants)
IT      Polyamines (nonpolymeric)
        RL: TEM (Technical or engineered material use); USES (Uses)
            (liq. cleaning compn. contg.
            polyamine cationic surfactants)
IT      30581-59-0D, Dimethylaminoethyl methacrylate-vinylpyrrolidone
        copolymer, quaternized 53633-54-8, Polyquaternium 11

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RL: TEM (Technical or engineered material use); USES (Uses)  
(liq. cleaning compn. contg.  
polyamine cationic surfactants)

L73 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1998:490483 Document No. 129:127218 Thickened hydroalcoholic hand  
**disinfectant composition.** Scholz, Matthew T. (Minnesota  
Mining and Manufacturing Co., USA). PCT Int. Appl. WO 9830096 A1  
19980716, 53 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG,  
BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU,  
ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,  
MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,  
TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW:  
AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE,  
IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN:  
PIXXD2. APPLICATION: WO 1997-US23846 19971222. PRIORITY: US 1997-781091  
19970109.

AB The title compn. includes a lower alc. and water in a wt. ratio of at  
least about 20:80 and a thickener system comprising a complex of at least  
one charged polymer and at least one oppositely charged surfactant. In an  
example, the thickener system comprises a complex of Pecosil PS-100 with  
Incromine BB. The compn. is easily washed off from the hand, leaving no  
residue.

IT **55972-61-7DP**, complex with Hamposyl S  
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP  
(Preparation); USES (Uses)  
(prepn. as thickening agent in hydroalcoholic hand **disinfectant**  
**compn.**)

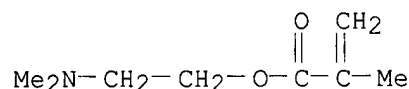
RN 55972-61-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

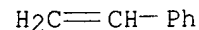
CMF C8 H15 N O2



CM 2

CRN 100-42-5

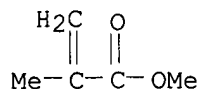
CMF C8 H8



CM 3

CRN 80-62-6

CMF C5 H8 O2



- IC ICM A01N031-02  
ICS A01N031-02; A01N025-30; A01N025-24; A01N025-04
- CC 63-8 (Pharmaceuticals)
- ST hydroalcoholic hand **disinfectant compn** thickened
- IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(di-Me, hydroxy-contg., ethers with polyethylene-polypropylene glycol phosphate, block, graft, complex with Incromine BB; thickening agent in hydroalcoholic hand **disinfectant compn.**)
- IT Thickening agents  
(for hydroalcoholic hand **disinfectant compn.**)
- IT Disinfectants  
Hand  
(hydroalcoholic hand **disinfectant compn.**)
- IT **55972-61-7DP**, complex with Hamposyl S  
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(prepn. as thickening agent in hydroalcoholic hand **disinfectant compn.**)
- IT 27119-07-9D, HSP 1180, complex with Incromine BB 60270-33-9D, Incromine BB, complex with Pecosil PS-100  
RL: MOA (Modifier or additive use); USES (Uses)  
(thickening agent in hydroalcoholic hand **disinfectant compn.**)
- IT 142-48-3DP, Hamposyl S, complex with tertiary amine polymer  
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(thickening agent in hydroalcoholic hand **disinfectant compn.**)

L73 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1997:699306 Document No. 128:4341 Antistatic polystyrene

**compositions** with excellent **cleaning** durability for electronic packages. Yonetani, Kiichi; Takeuchi, Masahiko; Yamaoka, Ikuro; Inaba, Shinji (Nippon Steel Chemical Co., Ltd., Japan; Nippon Steel Corp.). Jpn. Kokai Tokkyo Koho JP 09278958 A2 19971028 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-85428 19960408.

AB The comps. comprise (90-99.5):(0.5-10) (%) styrene-based resin (I)/hydrophilic resin (II) blends satisfying .eta.2/.eta.1 .ltoreq.2, 2 .times. 10-4 .ltoreq. .eta.1 .times. .phi.2 .ltoreq. 1 .times. 10-2 (Pa-s-m) [.eta.1, .eta.2 = melt viscosity (unit: Pa-s) of I and II under effective shear rate in kneading; .phi.2 = wt.-av. grain size (unit: m) of II dispersing around the central region of the blends]. Thus, 97 parts polystyrene (wt.-av. mol. wt. 45.6 .times. 104) was blended with 3 parts ethylene-ethylene glycol graft copolymer (no.-av. mol. wt. 4000) and 1 parts anionic surfactant, kneaded, pelletized, and injection-molded to give a specimen showing surface resistance 2.8 .times. 1011 .OMEGA./square and no exfoliation in ultrasonic-wave treatment in 50.degree. water for 90 min.

IT **198975-48-3**  
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(hydrophilic-resin-dispersed antistatic polystyrene **comps.** with good **cleaning** durability)

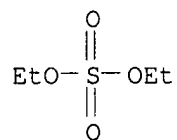
RN 198975-48-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate, compd. with diethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 64-67-5

CMF C4 H10 O4 S



CM 2

CRN 55972-61-7

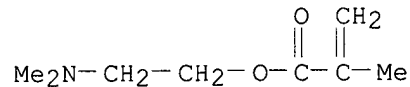
CMF (C8 H15 N O2 . C8 H8 . C5 H8 O2)x

CCI PMS

CM 3

CRN 2867-47-2

CMF C8 H15 N O2



CM 4

CRN 100-42-5

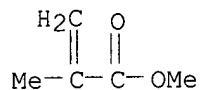
CMF C8 H8



CM 5

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08L025-04

ICS C09K003-16; C08L025-04; C08L101-14

CC 37-6 (Plastics Manufacture and Processing)



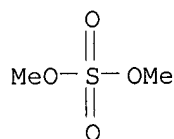
Section cross-reference(s): 76

- IT Electronic packages  
(antistatic; hydrophilic-resin-dispersed antistatic polystyrene **compns.** with good **cleaning** durability)
- IT Antistatic agents  
(hydrophilic-resin-dispersed antistatic polystyrene **compns.** with good **cleaning** durability)
- IT 128163-27-9 **198975-48-3**  
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(hydrophilic-resin-dispersed antistatic polystyrene **compns.** with good **cleaning** durability)
- IT 9003-53-6, Polystyrene  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(matrix; hydrophilic-resin-dispersed antistatic polystyrene **compns.** with good **cleaning** durability)
- L73 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2002 ACS  
1992:433425 Document No. 117:33425 **Cleansing compositions**  
containing **surfactants**, polyoxyalkylene-polysiloxanes, cationic silicone polymers, and other cationic polymers. Yamashina, Sahoko; Imamura, Takashi; Kumagai, Seiichi; Yahagi, Kazuyuki (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 04036225 A2 19920206 Heisei, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-143644 19900601.
- AB **Cleansing compns.**, useful for hair and fine fabrics  
(e.g. wool fabrics), contain (A) **detergent** bases chosen from anionic, nonionic, and amphoteric **surfactants**, (B) polyoxyalkylene-modified organopolysiloxanes (contg. 3-30 wt.% polyoxyalkylene in the mols.), (C) **cationic** silicone polymers **contg.** .gtoreq.1 aminoalkyl and/or **quaternary ammonium** group(s) in the mols., and (D) cationic polymers other than silicones. The preps. show hair-conditioning (e.g. softening, smoothing) effects. Na polyoxyethylene lauryl sulfate 15, Polymer JR-400 (cationic cellulose) 0.3, Dow Corning 929 (modified silicone) 0.5, and polyoxyalkylene-polysiloxane 1.0 wt.% were mixed to give a **shampoo**.
- IT **55008-57-6**, Gafquat 755N  
RL: BIOL (Biological study)  
(**shampoos** contg. polyoxyalkylene-polysiloxanes and cationic silicone polymers and, with conditioning effect)
- RN 55008-57-6 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone, compd. with dimethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1

CMF C2 H6 O4 S



CM 2

CRN 30581-59-0

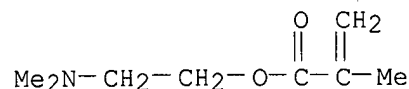
CMF (C8 H15 N O2 . C6 H9 N O)x

CCI PMS

CM 3

CRN 2867-47-2

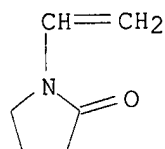
CMF C8 H15 N O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



IC ICM A61K007-075

ICS C11D003-37

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 46

ST **shampoo surfactant** siloxane cationic polymer; wool**detergent** siloxane cationic polymerIT **Shampoos**

(contg. polyoxyalkylnene-polysiloxanes and cationic silicone polymers and cationic polymers, with conditioning effect)

IT **Detergents**

(contg. polyoxyalkylnene-polysiloxanes and cationic silicone polymers and cationic polymers, with softening effect)

IT Siloxanes and Silicones, biological studies

RL: BIOL (Biological study)

(shampoos contg. polyoxyalkylnene-polysiloxanes and cationic polymers and, with conditioning effect)

IT Siloxanes and Silicones, biological studies

RL: BIOL (Biological study)

(amino-contg., shampoos contg. polyoxyalkylnene-polysiloxanes and cationic polymers and, with conditioning effect)

IT Siloxanes and Silicones, biological studies

RL: BIOL (Biological study)

(polyoxyalkylene-, shampoos contg. cationic silicone polymers and cationic polymers and, with conditioning effect)

IT Polyoxyalkylenes, biological studies

RL: BIOL (Biological study)

(siloxane-, shampoos contg. cationic

silicone polymers and cationic polymers and, with conditioning effect)

IT 26062-79-3, Merquat 100 26590-05-6, Merquat 550 55008-57-6,

Gafquat 755N 65497-29-2 81859-24-7, Polymer JR-400

RL: BIOL (Biological study)

(**shampoos** contg. polyoxyalkylene-polysiloxanes and cationic silicone polymers and, with conditioning effect)

IT 94395-78-5, Dow Corning 929

RL: BIOL (Biological study)

(**shampoos** contg. polyoxyalkylene-polysiloxanes and cationic polymers and, with conditioning effect)

L73 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1991:431282 Document No. 115:31282 Formable, weldable, and removable aqueous protective coatings. Van Buskirk, Ellor J. (PPG Industries, Inc., USA). Eur. Pat. Appl. EP 421250 A2 19910410, 13 pp. DESIGNATED STATES: R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1990-118433 19900926. PRIORITY: US 1989-415509 19891002.

AB The title coatings, useful for Zn (alloy)-coated metals, contain base-neutralized acid-functional polymers, wax lubricants, and removability-enhancing agents comprising acids, acid salts, or their mixts. Thus, a compn. contg. acrylic acid-Bu acrylate-diethylaminoethyl methacrylate-styrene copolymer ammonium salt and shell wax showed good humidity resistance (115 +/- 5.degree.F, 100% relative humidity) and weldability and was easily removed by Chemkleen 49 (alk. **cleaner**) within 30 s at 150.degree.F. The removability of the compn. can be improved by adding H3PO4, (NH4)2CO3, (NH4)2CrO7, or Na5P3O10.

IT 30397-37-6

RL: USES (Uses)

(aq. coatings, contg. waxes and acid (salts), easily removable, weldable)

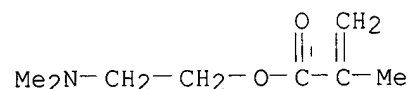
RN 30397-37-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with butyl 2-propenoate, ethenylbenzene and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

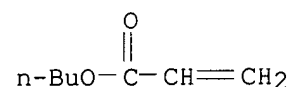
CMF C8 H15 N O2



CM 2

CRN 141-32-2

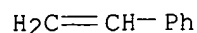
CMF C7 H12 O2



CM 3

CRN 100-42-5

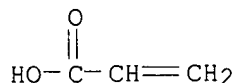
CMF C8 H8



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC ICM C09D005-00

ICS C09D007-12

CC 42-10 (Coatings, Inks, and Related Products)

ST weldability acrylic aq coating; moisture resistance aq acrylic coating;

alk **cleaner** aq acrylic coating; phosphoric acid removability

acrylic coating; ammonium salt removability acrylic coating

IT Coating materials

(moisture-resistant, aq. acrylic polymer- and wax- and acid

(salt)-contg., alk. **cleaner**-removable, weldable)

IT 9003-03-6 25586-20-3, Acrylic acidbutyl acrylate-styrene copolymer

**30397-37-6** 134809-35-1

RL: USES (Uses)

(aq. coatings, contg. waxes and acid (salts), easily removable, weldable)

L73 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1989:40851 Document No. 110:40851 Articles containing fabric softener and

soil release agent for treating fabrics in clothes dryer. Trinh, Toan

(Procter and Gamble Co., USA). U.S. US 4764289 A 19880816, 20 pp.

(English). CODEN: USXXAM. APPLICATION: US 1987-105760 19871005.

AB A compn. **contg.** a **cationic** and/or nonionic fabric

softener and a high-melting anionic polymeric soil release agent (at least

partially coated with nitrogenous polymer to inhibit interaction with

softener) is deposited on a dispensing means such as a nonwoven fabric to

prep. an article for imparting softness and soil release properties to

**laundered** fabrics in an automatic dryer. A compn. contg. R<sub>2</sub>N+Me<sub>2</sub>MeOSO<sub>3</sub>- (R = tallow alkyl) and poly(vinyl pyrrolidone)-coated Milease HPA

powder was deposited on a nonwoven rayon fabric to prep. a

fabric-conditioning article.

IT **118338-66-2**

RL: USES (Uses)

(soil-release agents coated by, for compatibility with fabric softeners)

RN 118338-66-2 HCAPLUS

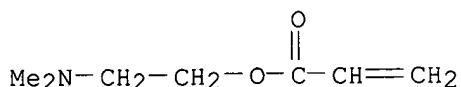
CN 2-Propenoic acid, 2-(dimethylamino)ethyl ester, polymer with

1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2439-35-2

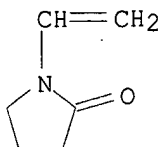
CMF C7 H13 N O2



CM 2

CRN 88-12-0

CMF C6 H9 N O



IC ICM D06M013-30

NCL 252008600

CC 46-5 (Surface Active Agents and Detergents)

ST polyester soil release fabric; soil release treatment fabric; softener treatment fabric; dryer fabric softening soilproofing; **quaternary ammonium** softener fabric; ammonium softener fabric dryer; polyvinylpyrrolidone encapsulation soilproofing agent

IT **Quaternary ammonium** compounds, uses and miscellaneous

RL: USES (Uses)

(dimethylditallow alkyl, Me sulfates, softening agents, fabric conditioners contg. soil release agent and, for use in dryer)

IT 9002-98-6, Polyethylenimine 9003-39-8, Poly(vinylpyrrolidone)

26913-06-4, Polyethylenimine, SRU.118338-66-2

RL: USES (Uses)

(soil-release agents coated by, for compatibility with fabric softeners)

L73 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1987:619111 Document No. 107:219111 Powdered starching agents for **laundered** fabrics. Ohira, Kozo; Iguchi, Kazuo (Kao Corp., Japan).

Jpn. Kokai Tokkyo Koho JP 62117878 A2 19870529 Showa, 11 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-248511 19851106.

AB Powd. mixts. comprising .alpha.-modified starch and/or processed starch 100, Na2SO4 1-20, silicone 0.01-3, cationic **surfactants** or cationic polymers 0.1-15 parts and contg. .gtoreq.70% particles with diam. 40-250 .mu. have improved dispersibility in H2O, and are useful for starching **laundered** fabrics with improved uniformity and good stiffness. Thus, starch 100, Na2SO4 5, hydroxy(trimethylamino)propyl starch 2, H2O 110 parts were mixed at 150.degree., dried, and pulverized to give .alpha.-modified starch-particles. These particles were then mixed with 2.5 parts siloxane to give a powder contg. 75% particles with diam. 40-250 .mu. and having good dispersibility in H2O and good starching uniformity, in contrast to a similar compn. contg. 60% particles with diam. 40-250 .mu..

IT 111367-37-4

RL: USES (Uses)

(modified starch powder starching agents contg., for improved fabric stiffness)

RN 111367-37-4 HCAPLUS

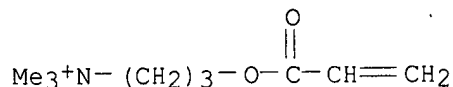
CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)oxy]-, chloride,

homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 110083-73-3

CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

- IC ICM D06M015-11  
ICS D06M013-46; D06M015-00; D06M015-643
- ICA D06M011-04
- CC 40-9 (Textiles and Fibers)  
Section cross-reference(s): 46
- IT Textiles  
Wearing apparel  
(starching agents for, modified powd. starch **contg.**  
**cationic** polymers or **surfactants**, sodium sulfate and  
siloxane as, with improved dispersibility in water)
- IT Sizes  
(starching agents, powd., modified starch **contg.**  
**cationic** polymers or **surfactant**, sodium sulfate and  
siloxanes as, with improved dispersibility in water, particle size  
control of)
- IT **Quaternary ammonium** compounds, uses and miscellaneous  
RL: USES (Uses)  
(tetraalkyl, modified starch powder starching agents **contg.**, for  
improved fabric stiffness)
- IT 112-00-5, Lauryl trimethylammonium chloride 9004-34-6D, Cellulose,  
cationized 9063-45-0 18448-65-2, Bis(hydroxyethyl)methyloleylammonium  
chloride 28826-65-5 74070-70-5 81859-24-7, JR 400 82703-31-9,  
Didecyldimethylammonium methosulfate **111367-37-4** 111367-39-6  
111367-41-0  
RL: USES (Uses)  
(modified starch powder starching agents **contg.**, for improved fabric  
stiffness)
- IT 9005-25-8  
RL: USES (Uses)  
(sizes, starching agents, powd., modified starch **contg.**  
**cationic** polymers or **surfactant**, sodium sulfate and  
siloxanes as, with improved dispersibility in water, particle size  
control of)
- IT 9005-25-8D, Starch, alpha-modified 9049-76-7, Hydroxypropyl starch  
RL: USES (Uses)  
(starching agents, powd., **contg.** sodium sulfate, siloxanes and cationic  
polymers or **surfactants**, with improved dispersibility in  
water)

L73 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1987:619110 Document No. 107:219110 Powdered starching agents for  
**laundered** fabrics. Ohira, Kozo; Iguchi, Kazuo (Kao Corp., Japan).

Jpn. Kokai Tokkyo Koho JP 62117876 A2 19870529 Showa, 9 pp. (Japanese).  
CODEN: JKXXAF. APPLICATION: JP 1985-248509 19851106.

AB Powd. mixts. comprising 100 parts .alpha.-modified starch and/or processed starch and 0.1-15 parts cationic **surfactants** or **cationic** polymers and **contg.** .gtoreq.70% particles with diam. 40-250 .mu. have improved dispersibility in H2O, and are useful for starching **laundered** fabrics with improved uniformity and good stiffness. Thus, starch 100, hydroxy(trimethylamino)propyl starch 2, and H2O 100 parts were mixed at 150.degree., dried, and pulverized to give a powder **contg.** 75% particles with diam. 40-250 .mu. and having good dispersibility in H2O, in contrast to a similar compn. **contg.** 60% particles with diam. 40-250 .mu..

IT **111367-37-4**

RL: USES (Uses)

(modified powd. starch starching agents **contg.**, for improved fabric stiffness)

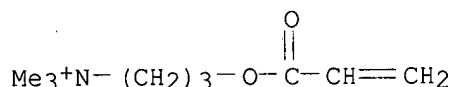
RN 111367-37-4 HCAPLUS

CN 1-Propanaminium, N,N,N-trimethyl-3-[(1-oxo-2-propenyl)oxy]-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 110083-73-3

CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

IC ICM D06M015-11

ICS D06M013-46; D06M015-00

CC 40-9 (Textiles and Fibers)

Section cross-reference(s): **46**

ST starch modified powd starching agent; dispersibility powd starch starching agent; cationic polymer additive powd starch; **surfactant** cationic additive powd starch

IT **Quaternary ammonium** compounds, uses and miscellaneous

RL: USES (Uses)

(modified powd. starch starching agents **contg.**, for improved fabric stiffness)

IT Textiles

Wearing apparel

(starching agents for, modified powd. starch **contg.**

**cationic** polymers or cationic **surfactants** as, with improved dispersibility in water)

IT Sizes

(starching agents, powd., modified starch **contg.**

**cationic** polymers or cationic **surfactants** as, with improved dispersibility in water, particle size control of)

IT **Surfactants**

(cationic, modified powd. starch starching agents **contg.**, for improved fabric stiffness)

IT 112-00-5, Lauryl trimethylammonium chloride 9063-45-0 18448-65-2

28826-65-5 81859-24-7, JR 400 82703-31-9, Didecyldimethylammonium  
methosulfate 89004-51-3 **111367-37-4** 111367-39-6  
111367-41-0

RL: USES (Uses)

(modified powd. starch starching agents contg., for improved fabric stiffness)

IT 9005-25-8

RL: USES (Uses)

(sizes, starching agents, powd., modified starch **contg.**

**cationic** polymers or cationic **surfactants** as, with

improved dispersibility in water, particle size control of)

IT 9005-25-8D, Starch, alpha-modified

RL: USES (Uses)

(starching agents, powd., **contg. cationic**

**surfactants** or cationic polymers, for fabrics, with improved

dispersibility in water)

L73 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1986:593396 Document No. 105:193396 Fabric conditioning method. Haq, Zia;  
Duffin, Bryan (Unilever PLC, UK; Unilever N. V.). Eur. Pat. Appl. EP  
188350 A2 19860723, 27 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB,  
IT, LI, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1986-300173  
19860113. PRIORITY: GB 1985-959 19850115.

AB A **laundrying** method is described which includes the treatment of  
fabrics with an aq. compns. contg. a fabric softener and pos. charged  
water-insol. thermoplastic particles (i.e., a drape-imparting agent) m.  
25-200.degree., followed by drying of part of the fabrics to impart  
softness and drying and ironing (above the softening temp. of the polymer)  
the remaining fabrics to impart body. The drape-imparting agent is easily  
removable by alk. washing solns. when it contained carboxy groups. Thus,  
a compn. contg. Arquad 2HT 4.5, 60:40 vinyl acetate-vinyl chloride  
copolymer (polymd. in presence of Rewoquate CPEM, a cationic surfactant)  
2.5, and water 93% was used to condition towels and sheets, imparting  
softness and, upon ironing at 140.degree., drape to the sheets.

IT **29994-70-5**

RL: USES (Uses)

(drape agents, for fabrics during ironing)

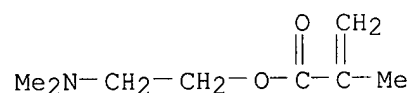
RN 29994-70-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl  
2-methyl-2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

CMF C8 H15 N O2

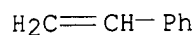


CM 2

CRN 100-42-5

CMF C8 H8

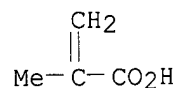




CM 3

CRN 79-41-4

CMF C4 H6 O2



IC ICM C11D001-62

ICS C11D003-37

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 38

ST softener drape **laundering** fabric; drape agent fabric ironing;  
fabric softener drape agent; polymer drape agent fabric; vinyl polymer  
drape fabric

IT 9003-22-9 25067-01-0 25767-47-9 25852-37-3 26300-51-6

**29994-70-5**

RL: USES (Uses)

(drape agents, for fabrics during ironing)

L73 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1986:535985 Document No. 105:135985 **Detergents**. Hoshino, Eiichi;  
Nakae, Tokuo; Murata, Moriyasu (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho  
JP 61047800 A2 19860308 Showa, 18 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 1984-167915 19840813.

AB **Laundry detergents contain** cellulase and  
**cationic** polymers to improve **detergency**. Thus, a  
**detergent** contg. poly(diallyldimethylammonium chloride) (I) and 2%  
cellulase had **detergency** 89%, compared with 68 for a similar  
**detergent** contg. I and no cellulase.

IT **72199-13-4 72199-13-4D**, sapond. **104350-12-1**

RL: USES (Uses)

(detergents contg. cellulase and)

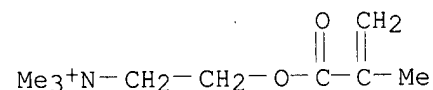
RN 72199-13-4 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
chloride, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

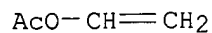
CM 1

CRN 5039-78-1

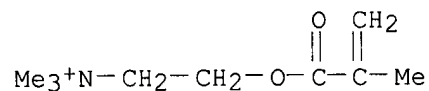
CMF C9 H18 N O2 . Cl

Cl<sup>-</sup>

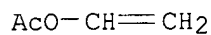
CM 2

CRN 108-05-4  
CMF C4 H6 O2RN 72199-13-4 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
chloride, polymer with ethenyl acetate (9CI) (CA INDEX NAME)

CM 1

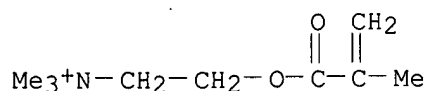
CRN 5039-78-1  
CMF C9 H18 N O2 . Cl● Cl<sup>-</sup>

CM 2

CRN 108-05-4  
CMF C4 H6 O2RN 104350-12-1 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
chloride, polymer with ethyl 2-propenoate and 2-propenoic acid (9CI) (CA  
INDEX NAME)

CM 1

CRN 5039-78-1  
CMF C9 H18 N O2 . Cl

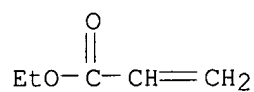


● Cl<sup>-</sup>

CM 2

CRN 140-88-5

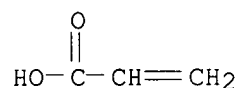
CMF C5 H8 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



IC ICM C11D003-386

ICS C11D003-37

CC **46-5** (Surface Active Agents and Detergents)

ST cationic polymer cellulase **detergent**;

polydiallyldimethylammonium chloride cellulase **detergent**

IT **Quaternary ammonium** compounds, polymers

RL: USES (Uses)

(polymers, **detergents** contg. cellulase and)

IT Polyelectrolytes

(**cationic, detergents** contg. cellulase

and)

IT **Detergents**

(**laundry, contg.** cellulase and **cationic** polymers)

IT 9012-54-8

RL: USES (Uses)

(**detergents** contg. **cationic** polymers and)

IT 26590-05-6

RL: USES (Uses)

(**detergents** contg. cellalose and)

IT 9005-25-8, uses and miscellaneous 26062-79-3 26427-01-0 28826-65-5

**72199-13-4 72199-13-4D**, saponid. **104350-12-1**

RL: USES (Uses)

(**detergents** contg. cellulase and)

IT 25155-30-0 25322-68-3D, alkyl ether, sulfate, sodium salts

RL: USES (Uses)  
(detergents, contg. cellulase and cationic polymers)

L73 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1979:406715 Document No. 91:6715 Paper coating materials. Kunigome, Jun; Hisano, Tadashi; Tahara, Seiichiro (Toyo Ink Mfg. Co., Ltd., Japan). Jpn. Tokkyo Koho JP 54006574 B4 19790329 Showa, 4 pp. (Japanese). CODEN: JAXXAD. APPLICATION: JP 1970-66664 19700731.

AB Copolymers derived from 30-95 wt.% alkyl (meth)acrylates, styrene, and (or) vinyl acetate and 5-70 wt.% CH<sub>2</sub>:CRCO<sub>2</sub>ZNR<sub>1</sub>R<sub>2</sub> (R = H or Me; R<sub>1</sub>, R<sub>2</sub> = Me or Et; Z = CH<sub>2</sub>CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>, or CH<sub>2</sub>CHMe) are quaternized, dissolved in H<sub>2</sub>O, mixed with 5-300 mol% (based on amino groups) epoxy resins, and used as paper coatings. Thus, a mixt. of styrene 60, 2-dimethylaminoethyl methacrylate 40, iso-PrOH 150, and AIBN 2.5 parts was stirred at 85.degree. to give a copolymer soln. which was treated with 4 parts concd. HCl and 150 parts H<sub>2</sub>O. The copolymer [69342-69-4] (98 parts) and 2 parts Epikote 812 [31305-91-6] were applied to art paper and dried 1 min at 80.degree.. The paper had water resistance (40.degree., 24 h) excellent, alkali resistance (0.5% aq. NaOH, 40.degree., 24 h) excellent, detergent resistance (10% aq. basic detergent soln., 40.degree., 24 h) excellent, and neutral detergent resistance (10% aq. soln., 40.degree., 24 h) excellent, compared with excellent, poor, fair, and excellent, resp., for similar paper coated with 50:50 acrylic acid-styrene copolymer ammonium salt.

IT 69342-69-4

RL: USES (Uses)  
(coatings, contg. epoxy resins, for paper)

RN 69342-69-4 HCAPLUS

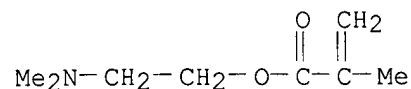
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene, hydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 26222-39-9  
CMF (C8 H15 N O2 . C8 H8)x  
CCI PMS

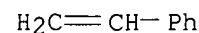
CM 2

CRN 2867-47-2  
CMF C8 H15 N O2



CM 3

CRN 100-42-5  
CMF C8 H8



IC C09D005-00; C09D003-80; D21H001-38

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
 IT **69342-69-4** 70515-01-4 70515-03-6 70515-04-7  
 RL: USES (Uses)  
 (coatings, contg. epoxy resins, for paper)

L73 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1969:503468 Document No. 71:103468 **Detergent compositions**  
**containing cationic** polymers for improving the  
 deposition and retention of particulate substances on surfaces washed  
 therewith. Parran, John J., Jr. (Procter and Gamble Co.). S. African ZA  
 6805954 19690328, 42 pp. (English). CODEN: SFXAB. PRIORITY: US  
 19670927.

AB Certain water-sol. **cationic N-contg.** polymers having a  
 mol. wt. within the range 2000-3,000,000 and having a cationic charge d.  
 >0.001 in aq. soln. enhance the deposition and retention of water-insol.  
 or slightly sol. particulate substances contained in **detergent**  
**comps.** on surfaces washed therewith. The **detergent**  
**comps.** comprise an org. **surfactant**, at least one of the  
 N-contg. polymers, and a water-insol. or sparingly sol. particulate  
 substance capable of imparting a desired residual property to a surface to  
 which it becomes attached. Although anionic **surfactants** are  
 generally preferred, ampholytic, polar nonionic, nonionic, zwitterionic,  
 or cationic **surfactants** can be used, and can comprise 2-95% by  
 wt. of the total compn. The water-sol. **cationic N-contg**  
 . polymers which can be used include those in which .gtoreq.30mole % of  
 the mol. structure is composed of monomeric units contg. one or more  
**quaternary ammonium** groups and any balance of which is  
 comprised of nonquaternized monomeric groups. The degree of  
 quaternization must be sufficient to provide a cationic charge d.  
 >.apprx.0.001. Particulate substances which can be used preferably have  
 an av. particle diam. within the range of about 0.2-50 .mu. and include  
 water- insol. or sparingly sol. antimicrobial agents, sunscreens, fabric  
 brighteners, and various substances which create a favorable skin feel  
 after washing. Each of the aforementioned components can be incorporated  
 in an aq. vehicle which may, in addn., include such materials as org.  
 solvents, such as EtOH; thickeners, such as carboxymethyl cellulose, Mg-Al  
 silicate, hydroxyethyl cellulose or methylcellulose; perfumes;  
 sequestering agents such as tetra-Na ethylenediamine-tetraacetate; and  
 opacifiers such as Zn or Mg stearate, which are useful in enhancing the  
 appearance or cosmetic properties of the product. These polymers may be  
 used in **shampoos, laundry, hard**  
**surface, and dishwashing detergents** and  
 personal-use toilet **detergent** bars.

IT **25119-82-8 25154-86-3**

RL: USES (Uses)

(quaternized, **detergents** contg.)

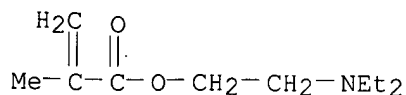
RN 25119-82-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester, homopolymer  
 (9CI) (CA INDEX NAME)

CM 1

CRN 105-16-8

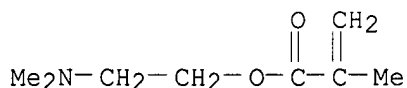
CMF C10 H19 N O2



RN 25154-86-3 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, homopolymer  
 (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2  
 CMF C8 H15 N O2



CC 46 (Surface Active Agents and Detergents)  
 ST cationic polymers compns; **quaternary ammonium**  
 polymers; polymers **quaternary ammonium**;  
**detergent compns**  
 IT **Detergents**, preparation  
 (bactericidal, **quaternary ammonium** polymeric  
 compd.-contg.)  
 IT Ammonium compounds, substituted, polymers  
 Bactericides  
 (**detergents** contg.)  
 IT Amines, uses and miscellaneous  
 RL: USES (Uses)  
 (poly-, **detergents** contg.)  
 IT **Shampoos**  
 (**quaternary ammonium** polymeric compd.-contg.)  
 IT Dandruff  
 (**shampoos** for control of)  
 IT Cellulose, **quaternary ammonium** derivs.  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**detergents** contg.)  
 IT Imidazole, vinyl-, polymers  
 RL: USES (Uses)  
 (quaternized, **detergents** contg.)  
 IT Trimethylamine  
 RL: USES (Uses)  
 (reaction products with chloroepoxypropane and hydroxyethyl cellulose,  
 quaternized, **detergents** contg.)  
 IT Cellulose, 2-hydroxyethyl ether  
 RL: USES (Uses)  
 (reaction products with chloroepoxypropane and trimethylamine,  
 quaternized, **detergents** contg.)  
 IT Ethylene oxide  
 RL: USES (Uses)  
 (reaction products with ethylenimine polymers, quaternized,  
**detergents** contg.)  
 IT Propane, 1-chloro-2,3-epoxy-  
 RL: USES (Uses)  
 (reaction products with hydroxyethyl cellulose and trimethylamine,  
 quaternized, **detergents** contg.)  
 IT 25119-82-8 25154-86-3  
 RL: USES (Uses)  
 (quaternized, **detergents** contg.)  
 IT 9002-98-6  
 RL: USES (Uses)

(reaction products with ethylene oxide, quaternized, **detergents** contg.)

L73 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2002 ACS

1968:41341 Document No. 68:41341 Polymeric latexes for opacifying **liquid detergents**. Blyth, Randolph C. (Monsanto Co.).  
U.S. US 3329638 19670704, 5 pp. (English). CODEN: USXXAM. APPLICATION:  
US 19630905.

AB A mixt. of water 5150, alkylarenesulfonate 40, tetrasodium pyrophosphate 2, and K2S2O8 1.7 parts was heated to reflux, a mixt. of 3026 parts styrene and 62 parts methacrylic acid added, slowly, and, after .apprx.5 min., a mixt. of 600 parts water and 22.7 parts K2S2O8 catalyst was also added slowly. The catalyst mixt. was added continuously throughout the reaction. After .apprx.15 min., addn. of the monomer mixt. was stopped for .apprx.20 min. and then resumed for .apprx.50 min., together with a mixt. of 150 parts water and 150 parts alkylarenesulfonate. The alkylarenesulfonate mixt. was added for 80 min. Approx. 15 min. after the monomer mixt. had been added, a mixt. of 449 parts styrene and 39 parts methacrylic acid was added during 17 min. followed by 150 parts water contg. 63 parts nonylphenol-ethylene oxide condensate. After .apprx.13 min., a mixt. of 410 parts styrene and 78 parts dimethylaminoethyl methacrylate (I) was added. Water (80 parts) contg. 20 parts Na lauryl sulfate was added and the mixt. refluxed for .apprx.25 min. The latex was cooled and the pH adjusted to .apprx.10 with 145 parts NH4OH. The latex contains interpolymer particles (.apprx.0.2 .mu. av. diam.) which comprise a styrene-methacrylic acid copolymer core covered by a layer (.apprx.0.008 .mu.) of chem. combined styrene, methacrylic acid, and I in .apprx.89.7:4.9:5.4 ratio. Aliquots of the latex were dild. to 4-8% solids and added (0.4-1.0% based on latex solids) to clear, **liquid detergents**. The opacified detergents (pH 6.2-7.0) were stable for >25 days at .ltoreq.125.degree.F. and for >10 days at 145.degree.F. and had an aesthetically superior appearance.

IT **29994-70-5**, uses and miscellaneous

RL: USES (Uses)

(as opacifier for **liq. detergents**)

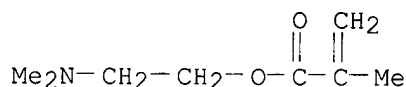
RN 29994-70-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

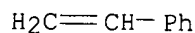
CMF C8 H15 N O2



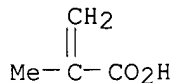
CM 2

CRN 100-42-5

CMF C8 H8



CM 3

CRN 79-41-4  
CMF C4 H6 O2

NCL 260029600  
CC 46 (Surface Active Agents and Detergents)  
IT Opacifiers  
(polymer latexes as, for **liq. detergents**)  
IT 9010-92-8, uses and miscellaneous 29994-70-5, uses and  
miscellaneous  
RL: USES (Uses)  
(as opacifier for **liq. detergents**)

=&gt; D L74 1-60 ti

L74 ANSWER 1 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic polymer dispersion for paper sizing

L74 ANSWER 2 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic surface size for paper with freedom from corrosion of  
papermachine and reduced scum formation

L74 ANSWER 3 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic emulsions for surface sizing of paper with reduced foaming and  
scum formation

L74 ANSWER 4 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of amphipathic polymers and their applications as **foam**  
-improver in cleaning agent

L74 ANSWER 5 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Hair-styling compositions containing silicones

L74 ANSWER 6 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Compositions of oil-based inks for electrostatic ink-jet printing with  
good discharge stability and giving prints with high clearness and  
adhesion strength

L74 ANSWER 7 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Liquid detergent compositions** comprising  
polymeric **suds** enhancers and hand **dishwashing**

L74 ANSWER 8 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Detergent compositions** comprising polymeric  
**suds** enhancers which have improved mildness and skin feel

L74 ANSWER 9 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Detergent compositions** comprising polymeric  
**suds** volume and **suds** duration enhancers for washing dish  
ware and fabric or personal **cleansers**



- L74 ANSWER 10 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Liquid detergent compositions** comprising  
block polymeric **suds** enhancers for hand **dishwashing**  
compsns. and personal care products
- L74 ANSWER 11 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Compositions and methods for using polymeric **suds** enhancers
- L74 ANSWER 12 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Ink-jet inks, their ink cartridges, printing units and ink sets, and  
printing method and apparatus therewith
- L74 ANSWER 13 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic **dispersants** for use in manufacture of surface sizing  
agents for paper
- L74 ANSWER 14 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Liquid detergent compositions** comprising  
polymeric **suds** enhancers in removing greasy soils from dish  
ware, flatware, and pots and pans
- L74 ANSWER 15 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Liquid detergent compositions** comprising  
polymeric **suds** enhancers in removing greasy soils from dish ware
- L74 ANSWER 16 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Foam** stable liquid **dishwashing** compositions and  
providing extended **suds** volume in **dish**  
**cleaning**
- L74 ANSWER 17 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Electrostatographic toner containing reactive **surfactant** for  
developer, the developer, and electrostatography
- L74 ANSWER 18 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Ink-jet recording sheets and cationic copolymer aqueous compositions for  
them
- L74 ANSWER 19 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of aqueous emulsion of copolymers containing  
organopolysiloxane side chains and alcohol-soluble polymer side chains
- L74 ANSWER 20 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Heat- and water-resistant cationic microgels and their manufacture
- L74 ANSWER 21 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Ink units and ink-jet printing process therewith
- L74 ANSWER 22 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Color ink sets and ink-jet recording process therewith
- L74 ANSWER 23 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Manufacture of water-thinned emulsion-polymerized polymer adhesives  
containing inorganic particle fillers
- L74 ANSWER 24 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic electrodeposition coating composition.
- L74 ANSWER 25 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Salt water-tolerant additives for improving strength of paper made from

recycled fibers

- L74 ANSWER 26 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Polymerization in microemulsion - size and surface control of ultrafine latex particles
- L74 ANSWER 27 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Nonaqueous-dispersion resin compositions
- L74 ANSWER 28 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Rosin tertiary alkanolamine ester emulsions as sizes for papermaking
- L74 ANSWER 29 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Storage-stable cationic rosin emulsion sizes for neutral paper
- L74 ANSWER 30 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Rosin emulsion sizes with good storage stability and tolerance to near-neutral pH
- L74 ANSWER 31 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic rosin-emulsion sizing compositions for paper
- L74 ANSWER 32 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Manufacture of aqueous resin particles by **soap**-free emulsion polymerization
- L74 ANSWER 33 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Hot rolling oil compositions for aluminum and aluminum alloys
- L74 ANSWER 34 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Manufacture of waterborne polymer particles for microcapsule toner encapsulation
- L74 ANSWER 35 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Emulsions of polymers bearing perfluoroalkyl groups as waterproofing and oilproofing finishes
- L74 ANSWER 36 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Acrylic amphoteric polymers and their use as gelatin extenders or replacements in photographic emulsions
- L74 ANSWER 37 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Manufacture of **soap**-free cationic emulsions
- L74 ANSWER 38 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Shade-enhancing and color-deepening agents for fiber dyeing
- L74 ANSWER 39 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI A cold rolling oil composition for aluminium and aluminium-containing alloys
- L74 ANSWER 40 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic sizes for paper
- L74 ANSWER 41 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Water-thinned pigment compositions for writing or printing
- L74 ANSWER 42 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Dispersion stabilizers for suspension polymerization in oil

L74 ANSWER 43 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Fabric conditioning composition

L74 ANSWER 44 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Stabilized paper size

L74 ANSWER 45 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Water-soluble polymers for metalworking lubricants

L74 ANSWER 46 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of toner

L74 ANSWER 47 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Metal-treating oil composition

L74 ANSWER 48 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Slip-resistant agents for paper or board

L74 ANSWER 49 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Sizing agent and its use

L74 ANSWER 50 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI **Detergents**

L74 ANSWER 51 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Thermosetting **cationic** acrylic latex **containing**  
blocked isocyanates

L74 ANSWER 52 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Antifogging plastic moldings

L74 ANSWER 53 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI A toner composition for electrophotography and a method for manufacturing  
the same

L74 ANSWER 54 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Stable aqueous solution of vinyl copolymers containing anionic groups and  
multivalent cationic compounds or **surfactants** and their use

L74 ANSWER 55 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Fine beadlike polymer particles containing an inorganic pigment and/or a  
black coloring agent

L74 ANSWER 56 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Dispersions stabilized with polyelectrolytes

L74 ANSWER 57 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Sizing agent for paper manufacture

L74 ANSWER 58 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Surface-active polyelectrolytes

L74 ANSWER 59 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Polymerization of acrylonitrile with aminoalkyl methacrylate in aqueous  
systems

L74 ANSWER 60 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
TI Acrylic fibers resistant to anionic dyes

=> d L74 3,4,7-11,14-16,37,50 cbib abs hitstr hitind  
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FILE LAST UPDATED: 8 Apr 2002 (20020408/ED)

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The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

=> d L74 3,4,7-11,14-16,37,50 cbib abs hitstr hitind

L74 ANSWER 3 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
2001:707436 Document No. 135:258764 Cationic emulsions for surface sizing of paper with reduced foaming and scam formation. Tamiya, Koichi; Kusaka, Seiichi; Ikeda, Takeshi (Nippon P.M.C. K. K., Japan). Jpn. Kokai Tokkyo Koho JP 2001262495 A2 20010926, 10 pp. (Japanese). CODEN: JKXXAF.  
APPLICATION: JP 2000-72086 20000315.

AB The emulsions are obtained by the polymn. of hydrophobic monomers in the presence of a mixt. of the quaternized product of a copolymer of a monomer bearing tert-amino groups and hydrophobic monomer, and a nonionic **surfactant**. Thus, prep. an epichlorohydrin-quaternized dimethylaminoethyl methacrylate-styrene copolymer, and polymg. Bu acrylate 50 with styrene 50 in the presence of the resulting quaternized product 25 and polyethylene glycol lauryl ether 3% using an aq. ammonium persulfate soln. gave a **cationic** emulsion **contg.** 35.3% solids for surface sizing of paper with reduced scam and foaming.

IT **26222-39-9DP**, Dimethylaminoethyl methacrylate-styrene copolymer, quaternized products  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(surface sizing agent **contg.**; **cationic** emulsions  
for surface sizing of paper with reduced foaming and scam formation)

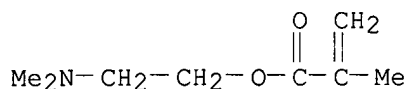
RN 26222-39-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

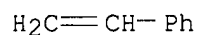
CMF C8 H15 N O2



CM 2

CRN 100-42-5

CMF C8 H8



IC ICM D21H021-16

ICS C08F002-30; C08F002-44; C08F257-02; C08F265-06; C08F291-00;  
D21H019-20

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

ST foaming redn surface sizing paper cationic emulsion hydrophobic monomer;  
nonionic **surfactant** surface sizing paper scam redn

IT **Surfactants**

(nonionic; cationic emulsions for surface sizing of paper with reduced  
foaming and scam formation)

IT 9002-92-0, Polyethylene glycol lauryl ether 9005-00-9, Polyethylene  
glycol stearyl ether 9016-45-9, Polyethylene glycol nonylphenyl ether  
50977-30-5, Polyethylene glycol lauryl ether methacrylate ester  
52352-43-9, Polyethylene glycol stearyl ether methacrylate

RL: MOA (Modifier or additive use); USES (Uses)

(nonionic **surfactant**; cationic emulsions for surface sizing  
of paper with reduced foaming and scam formation)

IT 106-89-8DP, Epichlorohydrin, quaternized products with tert-amino  
group-contg. monomer copolymer **26222-39-9DP**, Dimethylaminoethyl  
methacrylate-styrene copolymer, quaternized products 28323-68-4DP,  
quaternized products 126943-43-9DP, quaternized products

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)

(surface sizing agent **contg.**; **cationic** emulsions  
for surface sizing of paper with reduced foaming and scam formation)

L74 ANSWER 4 OF 60 HCAPLUS COPYRIGHT 2002 ACS

2001:40236 Document No. 134:116611 Preparation of amphipathic polymers and  
their applications as **foam**-improver in cleaning agent. Toki,  
Ikuko; Miyake, Miyuki (Lion Corp., Japan). Jpn. Kokai Tokkyo Koho JP  
2001011491 A2 20010116, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION:  
JP 1999-185456 19990630.

AB The patent relates to the prepn. of amphipathic polymers of acrylic acid  
or methacrylic acid, C1-22 acrylate or methacrylate, and a acrylamide or

acrylate monomer wherein the acid is neutralized. The polymers are used as **bubble** modifier in **surfactant formulation** for **shampoo**, **cleaning agent**, **detergent**, bleaching agent, and **foam** fire-extinguisher. Thus, a copolymer prepd. from acrylic acid, lauryl acrylate, and methoxypolyethyleneglycol methacrylate at 0.5 wt.% in a sodium laurylsulfate soln. showed good **bubble** stabilization.

IT 320592-82-3P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(amphipathic polymer; prepn. of amphipathic polymers and their applications as **foam**-improver in cleaning agent)

RN 320592-82-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with dodecyl 2-propenoate and 2-propenoic acid, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 320592-81-2

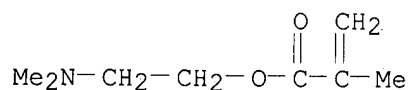
CMF (C15 H28 O2 . C8 H15 N O2 . C3 H4 O2)x

CCI PMS

CM 2

CRN 2867-47-2

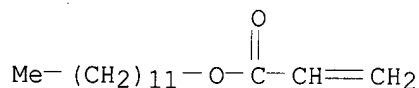
CMF C8 H15 N O2



CM 3

CRN 2156-97-0

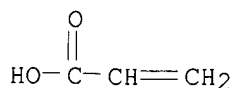
CMF C15 H28 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC ICM C11D003-37

ICS A61K007-00; A61K007-06; A61K007-075; A61K007-16; A61K007-48;  
A61K007-50; A62D001-04; B01F017-52; C08F220-00; C08L033-00

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 35, 46

ST amphipathic copolymer **detergent foam** stabilizer prepn;  
acrylic acid lauryl acrylate functional acrylamide copolymer prepn

IT Fire extinguishers  
(**foam** stabilizer; in prepn. of amphipathic polymers and their  
applications as **foam-improver**)

IT Bleaching agents  
**Detergents**  
**Shampoos**  
**Surfactants**  
(in prepn. of amphipathic polymers and their applications as  
**foam-improver** in cleaning agent)

IT **Foams**  
(prepn. of amphipathic polymers and their applications as **foam**  
-improver in cleaning agent)

IT 93891-12-4P 320592-75-4P 320592-76-5P 320592-78-7P 320592-80-1P  
**320592-82-3P** 320592-84-5P 320592-86-7P 320592-88-9P  
320592-90-3P 320592-92-5P 320618-56-2P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(amphipathic polymer; prepn. of amphipathic polymers and their  
applications as **foam-improver** in cleaning agent)

L74 ANSWER 7 OF 60 HCAPLUS COPYRIGHT 2002 ACS

2000:842229 Document No. 134:18781 **Liquid detergent**

**compositions** comprising polymeric **suds** enhancers and  
hand **dishwashing**. Sivik, Mark Robert; Bodet, Jean-Francois;  
Kluesener, Bernard William; Scheper, William Michael; Bergeron, Vance;  
Yeung, Dominic Wai-Kwing (The Procter & Gamble Company, USA; Rhodia,  
Inc.). PCT Int. Appl. WO 2000071659 A1 20001130, 98 pp. DESIGNATED  
STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN,  
CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,  
LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,  
SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY,  
DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE,  
SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US14427  
20000525. PRIORITY: US 1999-320519 19990526.

AB **Liq. detergent compns.** comprise a polymeric  
**suds** enhancer and a **suds** vol. extender, the compns.  
having increased effectiveness for preventing re-deposition of grease  
during hand washing. **Suds** vol. and **suds** endurance  
enhancers comprise a polymeric **suds** stabilizer of (i) units  
capable of having a cationic charge at a pH .apprx.4-12; provided that the  
**suds** stabilizer has an av. cationic charge d. .ltoreq.2.77  
units/100 daltons at a pH .apprx.4-12, optionally hydrophobic and hydroxy  
units, (b) detergent **surfactant**, and (c) the balance carriers  
and other adjunct ingredients e.g. diamines; provided that a 10% aq.  
**soln.** of the **detergent compn.** has a pH  
.apprx.4-12. An example **detergent** contained alkyl sulfates  
33.29, hydroxy fatty acid amide 4.2, amine oxide **surfactant** 4.8,  
alc. ethoxylate 1.0, MgCl2 0.72, Ca citrate 0.35, **suds** booster  
dimethylaminoethyl methacrylate-Bu vinyl ether copolymer 0.5%, and the  
balance water.

IT **51032-36-1P**, Acrylic acid-2-(dimethylamino)ethyl

methacrylate-2-hydroxyethyl acrylate copolymer **310461-45-1P**,  
 Acrylic acid-2-(dimethylamino)ethyl methacrylate-2-hydroxypropyl acrylate  
 copolymer **310461-46-2P**, Acrylic acid-2-(dimethylamino)ethyl  
 methacrylate-poly(ethylene glycol) monoacrylate copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
 (Preparation); USES (Uses)

(liq. hand **dishwashing detergent**

**compns.** comprising polymeric **suds** enhancers

preventing re-deposition of grease in removing greasy soils from dish  
 ware)

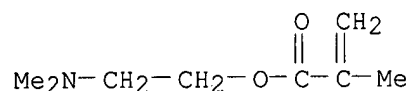
RN 51032-36-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 2-hydroxyethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

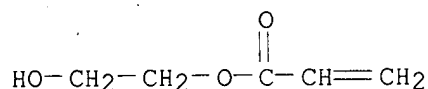
CMF C8 H15 N O2



CM 2

CRN 818-61-1

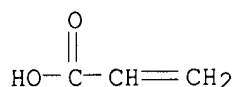
CMF C5 H8 O3



CM 3

CRN 79-10-7

CMF C3 H4 O2



RN 310461-45-1 HCAPLUS

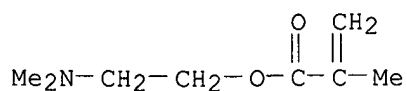
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 2-hydroxypropyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

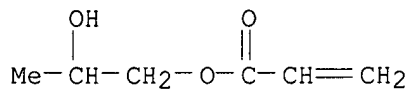
CMF C8 H15 N O2





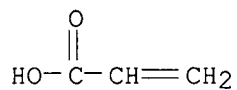
CM 2

CRN 999-61-1  
CMF C6 H10 O3



CM 3

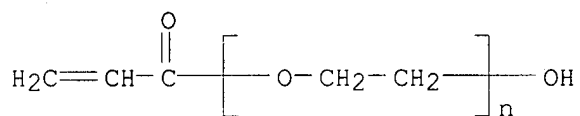
CRN 79-10-7  
CMF C3 H4 O2



RN 310461-46-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
.alpha.-(1-oxo-2-propenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and  
2-propenoic acid (9CI) (CA INDEX NAME)

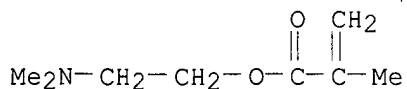
CM 1

CRN 26403-58-7  
CMF (C2 H4 O)<sub>n</sub> C3 H4 O2  
CCI PMS

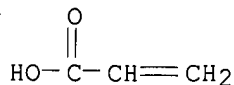


CM 2

CRN 2867-47-2  
CMF C8 H15 N O2



CM 3

CRN 79-10-7  
CMF C3 H4 O2

- IC ICM C11D003-37  
ICS C11D003-00; C11D017-00; C11D003-30
- CC **46-5** (Surface Active Agents and Detergents)
- ST polymeric **suds** enhancer **liq detergent**;  
grease removal **liq dishwashing detergent**;  
**foam** stabilizer booster **dishwashing detergent**;  
cationic polymer **foam** stabilizer
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(diamines; **liq. hand dishwashing detergent**  
**compns.** comprising polymeric **suds** enhancers  
preventing re-deposition of grease in removing greasy soils from dish  
ware)
- IT **Detergents**  
(**dishwashing**; **liq. hand dishwashing**  
**detergent compns.** comprising polymeric **suds**  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Stabilizing agents  
(for **foam**; **liq. hand dishwashing**  
**detergent compns.** comprising polymeric **suds**  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT **Detergents**  
(**liq.**; **liq. hand dishwashing**  
**detergent compns.** comprising polymeric **suds**  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT 50839-08-2P, 2-(Dimethylamino)ethyl methacrylate-2-hydroxyethyl acrylate  
copolymer **51032-36-1P**, Acrylic acid-2-(dimethylamino)ethyl  
methacrylate-2-hydroxyethyl acrylate copolymer **310461-45-1P**,  
Acrylic acid-2-(dimethylamino)ethyl methacrylate-2-hydroxypropyl acrylate  
copolymer **310461-46-2P**, Acrylic acid-2-(dimethylamino)ethyl  
methacrylate-poly(ethylene glycol) monoacrylate copolymer 310461-47-3P,  
2-(Dimethylamino)ethyl methacrylate-N-butyl vinyl ether copolymer  
310461-48-4P, 2-(Diethylamino)ethyl vinyl ether-ethylene glycol monovinyl  
ether copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
(Preparation); USES (Uses)  
(**liq. hand dishwashing detergent**  
**compns.** comprising polymeric **suds** enhancers  
preventing re-deposition of grease in removing greasy soils from dish  
ware)
- IT 2579-20-6, 1,3-Cyclohexanedimethanamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(**liq. hand dishwashing detergent**  
**compns.** comprising polymeric **suds** enhancers  
preventing re-deposition of grease in removing greasy soils from dish

ware)

L74 ANSWER 8 OF 60 HCAPLUS COPYRIGHT 2002 ACS

2000:842228 Document No. 134:30639 **Detergent compositions**

comprising polymeric **suds** enhancers which have improved mildness and skin feel. Kasturi, Chandrika; Schafer, Michael Gayle; Spears, Marsha Jean; Hutton, Howard David; Sivik, Mark Robert; Scheper, William Michael; Kluesener, Bernard William (The Procter & Gamble Company, USA). PCT Int. Appl. WO 2000071658 A1 20001130, 192 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US14405 20000525. PRIORITY: US 1999-PV135888 19990526.

AB **Detergent compns.** comprise polymeric **suds** vol. and **suds** duration enhancers, or proteinaceous stabilizers or zwitterionic stabilizers, in addn. to **surfactants**, diamine, and adjunct agents. An example **cleaner** contained midbranched linear alkylbenzenesulfonate 3.0, Dobanol 23-3 1.0, Empilan KBE21 2.0, Na paraffin sulfonate 2.0, acrylic acid-2-(dimethylamino)ethyl methacrylate-methacrylic acid copolymer 0.1, Na cumenesulfonate 1.2, MgSO<sub>4</sub> 0.2, citrate 0.3, NaHCO<sub>3</sub> 0.06%, and the balance water.

IT **26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer **53232-15-8P**

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(mild compns. comprising polymeric **suds** stabilizers for washing hair and skin and fabric and dish ware)

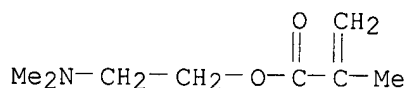
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

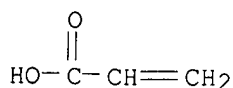
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



RN 53232-15-8 HCAPLUS

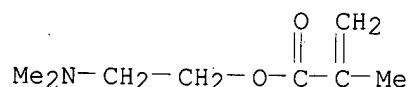
har699544.trn

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl  
2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

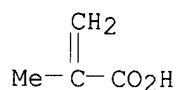
CMF C8 H15 N O2



CM 2

CRN 79-41-4

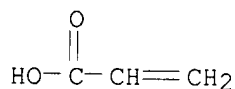
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



- IC ICM C11D003-37  
ICS A61K007-48; C11D003-30
- CC **46-5** (Surface Active Agents and Detergents)  
Section cross-reference(s): 62
- ST polymeric **suds** booster stabilizer **detergent**;  
zwitterionic **suds** booster stabilizer **detergent**;  
proteinaceous **suds** booster stabilizer **detergent**
- IT **Shampoos**  
(comps. comprising polymeric **suds** vol. and **suds**  
duration enhancers for washing hair and skin)
- IT Stabilizing agents  
(for **foam**; mild comps. comprising polymeric **suds**  
stabilizers for washing hair and skin and fabric and dish ware)
- IT Peptides, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(mild comps. comprising polymeric **suds** stabilizers for  
washing hair and skin and fabric and dish ware)
- IT **Detergents**  
(mild **detergent** comps. comprising polymeric  
**suds** stabilizers for washing dish ware and fabric or personal  
**cleansers**)
- IT 25154-86-3P, Poly(2-(dimethylamino)ethyl methacrylate) **26655-25-4P**

, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer 28675-43-6P, 2-(Dimethylamino)ethyl methacrylate-methacrylic acid copolymer **53232-15-8P** 108919-59-1DP, Maleic anhydride-1-octene alternating copolymer, reaction products with dimethylaminopropylamine 131062-60-7P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide copolymer 135093-08-2DP, reaction products with dimethylaminopropylamine 225935-81-9P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide-methacrylic acid copolymer

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(mild compns. comprising polymeric **suds** stabilizers for washing hair and skin and fabric and dish ware)

IT 109-55-7D, 3-Dimethylaminopropylamine, reaction products with maleic anhydride-olefin polymers 9001-63-2, Lysozyme 28704-27-0 226084-79-3, LX 1279

RL: MOA (Modifier or additive use); USES (Uses)

(mild compns. comprising polymeric **suds** stabilizers for washing hair and skin and fabric and dish ware)

IT 109-76-2, 1,3-Propanediamine 124-09-4, 1,6-Hexanediamine, uses 589-37-7, 1,3-Pentanediamine 590-88-5, 1,3-Diaminobutane 929-59-9, 1,2-Bis(2-aminoethoxy)ethane 2077-90-9, 1,3-Bis(methylamino)cyclohexane 2855-13-2, Isophoronediamine 15520-10-2, 2-Methyl-1,5-pentanediamine

RL: TEM (Technical or engineered material use); USES (Uses)

(mild compns. comprising polymeric **suds** stabilizers for washing hair and skin and fabric and dish ware)

IT 25155-30-0, Sodium dodecylbenzenesulfonate

RL: TEM (Technical or engineered material use); USES (Uses)

(**surfactant**; mild compns. comprising polymeric **suds** stabilizers for washing hair and skin and fabric and dish ware)

L74 ANSWER 9 OF 60 HCAPLUS COPYRIGHT 2002 ACS

2000:842226 Document No. 134:30638 **Detergent compositions**

comprising polymeric **suds** volume and **suds** duration

enhancers for washing dish ware and fabric or personal **cleansers**

. Kasturi, Chandrika; Schafer, Michael Gayle; Bodet, Jean-Francois;

Berger, Patricia Sara; Sivik, Mark Robert; Scheper, William Michael;

Kluesener, Bernard William (Procter & Gamble Company, USA). PCT Int.

Appl. WO 2000071652 A2 20001130, 193 pp. DESIGNATED STATES: W: AE, AL,

AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE,

DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,

IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,

MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,

TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,

RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI,

FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.

(English). CODEN: PIXXD2. APPLICATION: WO 2000-US14564 20000525.

PRIORITY: US 1999-PV135982 19990526.

AB **Detergent compns.** comprising polymeric **suds**

vol. and **suds** duration enhancers, or proteinaceous stabilizers

or zwitterionic stabilizers, in addn. to **surfactants** and adjunct

agents. An example **cleaner** contained midbranched linear

alkylbenzenesulfonate 3.0, Dobanol 23-3 1.0, Empilan KBE21 2.0, Na

paraffin sulfonate 2.0, acrylic acid-2-(dimethylamino)ethyl

methacrylate-methacrylic acid copolymer 0.1, Na cumenesulfonate 1.2, MgSO<sub>4</sub>

0.2, citrate 0.3, NaHCO<sub>3</sub> 0.06%, and the balance water.

IT **26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer **53232-15-8P**

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(compns. comprising polymeric **suds** vol. and **suds**

duration enhancers for washing hair and skin and fabric and dish ware)

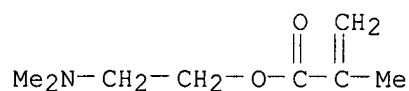
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

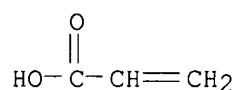
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



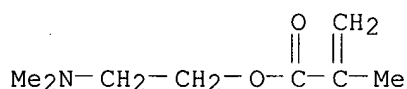
RN 53232-15-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl  
2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

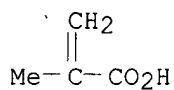
CMF C8 H15 N O2



CM 2

CRN 79-41-4

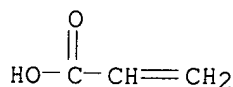
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



- IC ICM C11D  
 CC **46-5** (Surface Active Agents and Detergents)  
 Section cross-reference(s): 62  
 ST polymeric **suds** booster stabilizer **detergent**;  
 zwitterionic **suds** booster stabilizer **detergent**;  
 proteinaceous **suds** booster stabilizer **detergent**  
 IT **Shampoos**  
 (compns. comprising polymeric **suds** vol. and **suds**  
 duration enhancers for washing hair and skin)  
 IT **Detergents**  
 (detergent compns. comprising polymeric  
**suds** vol. and **suds** duration enhancers for washing  
 dish ware and fabric or personal **cleansers**)  
 IT Stabilizing agents  
 (for **foam**; compns. comprising polymeric **suds** vol.  
 and **suds** duration enhancers for washing hair and skin and  
 fabric and dish ware)  
 IT 109-55-7DP, 3-Dimethylaminopropylamine, reaction products with maleic  
 anhydride-olefin polymers 25154-86-3P, Poly(2-(dimethylamino)ethyl  
 methacrylate) **26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl  
 methacrylate copolymer 28675-43-6P, 2-(Dimethylamino)ethyl  
 methacrylate-methacrylic acid copolymer **53232-15-8P**  
 108919-59-1DP, Maleic anhydride-1-octene alternating copolymer, reaction  
 product with dimethylaminopropylamine 131062-60-7P, 2-  
 (Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide copolymer  
 135093-08-2DP, reaction product with dimethylaminopropylamine  
 225935-81-9P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide-  
 methacrylic acid copolymer  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
 (Preparation); USES (Uses)  
 (compns. comprising polymeric **suds** vol. and **suds**  
 duration enhancers for washing hair and skin and fabric and dish ware)  
 IT 9001-63-2, Lysozyme 28704-27-0 226084-79-3, LX 1279  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (compns. comprising polymeric **suds** vol. and **suds**  
 duration enhancers for washing hair and skin and fabric and dish ware)  
 IT 25155-30-0, Sodium dodecylbenzenesulfonate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (**surfactant**; compns. comprising polymeric **suds** vol.  
 and **suds** duration enhancers for washing hair and skin and  
 fabric and dish ware)

L74 ANSWER 10 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
 2000:842225 Document No. 134:30637 **Liquid detergent**  
**compositions** comprising block polymeric **suds** enhancers  
 for hand **dishwashing** compns. and personal care products.  
 Bergeron, Vance; Yeung, Dominic Wai-Kwing; Bodet, Jean-Francois; Sivik,  
 Mark Robert; Kluesener, Bernard William; Scheper, William Michael (Rhodia  
 Inc., USA). PCT Int. Appl. WO 2000071651 A2 20001130, 165 pp. DESIGNATED  
 STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,  
 CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,  
 IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,  
 MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,

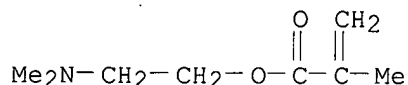
TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM;  
 RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB,  
 GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English).  
 CODEN: PIXXD2. APPLICATION: WO 2000-US14456 20000525. PRIORITY: US  
 1999-318941 19990526.

- AB **Liq. detergent compns.** comprise .gtoreq.1  
 block polymeric **suds** enhancer and a **suds** vol.  
 extender, the compns. having increased effectiveness for preventing  
 re-deposition of grease during hand washing and use in **soaps**,  
 shaving cream **foam**, **foaming** shaving gel, **foam**  
 depiliatories and **shampoos**. **Suds** vol. and  
**suds** endurance enhancers comprise a polymeric **suds**  
 stabilizer of (i) units capable of having a cationic charge at a pH  
 .apprx.4-12; provided that the **suds** stabilizer has an av.  
 cationic charge d. 0.01-2.75 units/100 daltons at a pH .apprx.4-12,  
 optionally one or more addnl. building blocks such as hydroxyl-contg.  
 units, hydrophobic group-contg. units, hydrophilic group-contg. units,  
 anionic units, other cationic units, H-bonding units and zwitterionic  
 units, (b) deterative **surfactant**, and (c) the balance carriers  
 and other adjunct ingredients e.g. diamines; provided that a 10% aq.  
**soln.** of the **detergent compn.** has a pH  
 .apprx.4-12. The polymers are also effective as a soil release agent in  
 fabric **cleaners**, in agrochem. **foam**, fire-fighting  
**foam**, hard surface cleaner  
**foam**, and coagulant for TiO2 in paper making. An example  
**detergent** contained alkyl sulfates 33.29, hydroxy fatty acid amide  
 4.2, amine oxide **surfactant** 4.8, alc. ethoxylate 1.0, MgCl2  
 0.72, Ca citrate 0.35, **suds** booster dimethylaminoethyl  
 methacrylate-Bu vinyl ether copolymer 0.5%, and the balance water.
- IT **51032-36-1P**, Acrylic acid-2-(dimethylamino)ethyl  
 methacrylate-2-hydroxyethyl acrylate copolymer **310461-45-1P**,  
 Acrylic acid-2-(dimethylamino)ethyl methacrylate-2-hydroxypropyl acrylate  
 copolymer **310897-75-7P**, Acrylic acid-2-(dimethylamino)ethyl  
 methacrylate-poly(ethylene glycol) acrylate copolymer  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
 (Preparation); USES (Uses)  
 (liq. hand **dishwashing detergent**  
**compns.** comprising polymeric **suds** enhancers  
 preventing re-deposition of grease in removing greasy soils from dish  
 ware)
- RN 51032-36-1 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 2-hydroxyethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

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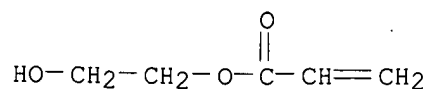


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CRN 818-61-1

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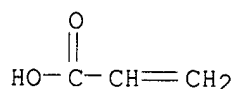




CM 3

CRN 79-10-7

CMF C3 H4 O2



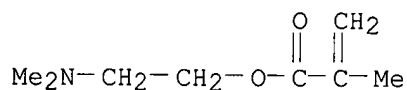
RN 310461-45-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-hydroxypropyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

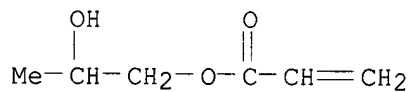
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CM 2

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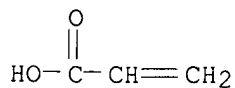
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CM 3

CRN 79-10-7

CMF C3 H4 O2



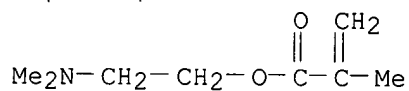
RN 310897-75-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with

.alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) 2-propenoate and  
2-propenoic acid (9CI) (CA INDEX NAME)

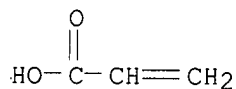
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CRN 2867-47-2  
CMF C8 H15 N O2



CM 2

CRN 79-10-7  
CMF C3 H4 O2

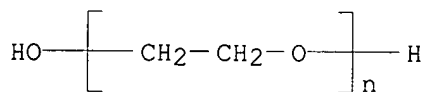


CM 3

CRN 60182-11-8  
CMF C3 H4 O2 . x (C2 H4 O)n H2 O  
CDES 8:GD,ESTER

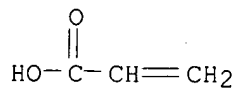
CM 4

CRN 25322-68-3  
CMF (C2 H4 O)n H2 O  
CCI PMS



CM 5

CRN 79-10-7  
CMF C3 H4 O2



IC ICM C11D  
CC 46-5 (Surface Active Agents and Detergents)  
ST polymeric suds enhancer liq detergent;

- grease removal liq dishwashing detergent;  
foam stabilizer booster dishwashing detergent;  
cationic block polymer foam stabilizer
- IT Fungicides  
(agrochem., foam; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Shaving preparations  
(creams; liq. hand dishwashing detergent  
compns. comprising polymeric suds enhancers  
preventing re-deposition of grease in removing greasy soils from dish  
ware)
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(diamines; liq. hand dishwashing detergent  
compns. comprising polymeric suds enhancers  
preventing re-deposition of grease in removing greasy soils from dish  
ware)
- IT Detergents  
(dishwashing; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Foams  
(fire-extinguishing; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Drilling fluids  
(foams for; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Fire extinguishers  
(foams; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Stabilizing agents  
(for foam; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Coagulants  
(for titania in paper making; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Detergents  
(laundry; liq. hand dishwashing  
detergent compns. comprising polymeric suds  
enhancers preventing re-deposition of grease in removing greasy soils  
from dish ware)
- IT Shampoos  
(liq. hand dishwashing detergent  
compns. comprising polymeric suds enhancers  
preventing re-deposition of grease in removing greasy soils from dish  
ware)
- IT Agrochemical formulations

- (pesticides, foam; liq. hand dishwashing detergent compns. comprising polymeric suds enhancers preventing re-deposition of grease in removing greasy soils from dish ware)
- IT 50839-08-2P, 2-(Dimethylamino)ethyl methacrylate-2-hydroxyethyl acrylate copolymer **51032-36-1P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate-2-hydroxyethyl acrylate copolymer **310461-45-1P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate-2-hydroxypropyl acrylate copolymer 310461-47-3P, 2-(Dimethylamino)ethyl methacrylate-N-butyl vinyl ether copolymer 310461-48-4P, 2-Diethylaminoethyl vinyl ether-ethylene glycol monovinyl ether copolymer **310897-75-7P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate-poly(ethylene glycol) acrylate copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(liq. hand dishwashing detergent compns. comprising polymeric suds enhancers preventing re-deposition of grease in removing greasy soils from dish ware)
- IT 2579-20-6, 1,3-Cyclohexanedimethanamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(liq. hand dishwashing detergent compns. comprising polymeric suds enhancers preventing re-deposition of grease in removing greasy soils from dish ware)
- L74 ANSWER 11 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
2000:842040 Document No. 134:30631 Compositions and methods for using polymeric **suds** enhancers. Sivik, Mark Robert; Bodet, Jean-Francois; Kluesener, Bernard William; Scheper, William Michael; Bergeron, Vance; Yeung, Dominic Wai-Kwing (Procter and Gamble Company, USA; Rhodia, Inc.). PCT Int. Appl. WO 2000071241 A1 20001130, 122 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US14408 20000525. PRIORITY: US 1999-320235 19990526.
- AB A **suds**-forming and/or **foam**-forming compn. having increased **suds** vol. and **suds** retention comprises: (a) an effective amt. of a polymeric **suds** stabilizer, the stabilizer comprising: (i) units capable of having a cationic charge at a pH 4-12; provided that the **suds** stabilizer has an av. cationic charge d. of 0.05-5 units per 100 daltons mol. wt. at a pH 4-12; (b) an effective amt. of a deterative **surfactant**; and (c) the balance carriers and other adjunct ingredients; provided that a 10% aq. soln. of the **suds**-forming and/or **foam**-forming compn. has a pH of 4-12. The polymeric **suds** stabilizers suitable for use in the methods and/or compns. of the present invention comprise cationic, anionic, and noncharged monomer units, or units having mixts. thereof. A **suds** stabilizer was prepd. by copolymn. of 2-(dimethylamino)ethyl methacrylate and methacrylic acid.
- IT **26655-25-4P**, Acrylic acid-2-(Dimethylamino)ethyl methacrylate copolymer **53232-15-8P**, Acrylic acid-2-(Dimethylamino)ethyl methacrylate-methacrylic acid copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(comps. and methods for using polymeric suds enhancers)

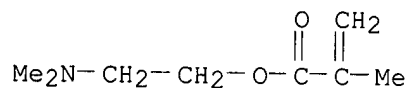
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

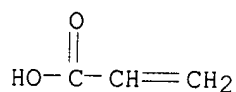
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



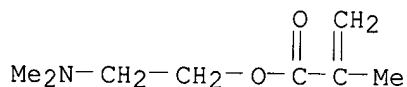
RN 53232-15-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl  
2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

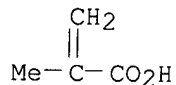
CMF C8 H15 N O2



CM 2

CRN 79-41-4

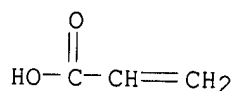
CMF C4 H6 O2



CM 3

CRN 79-10-7

CMF C3 H4 O2



- IC ICM B01F017-00  
ICS C11D003-37; A01N025-16; C09K007-08; A62D001-00
- CC **46-4** (Surface Active Agents and Detergents)
- ST cationic polymer **suds** enhancer; dimethylaminoethyl methacrylate copolymer **suds** enhancer
- IT Sulfonates  
RL: TEM (Technical or engineered material use); USES (Uses)  
(1-alkene; compns. and methods for using polymeric **suds** enhancers)
- IT Sulfonates  
RL: TEM (Technical or engineered material use); USES (Uses)  
(alkanesulfonates; compns. and methods for using polymeric **suds** enhancers)
- IT **Surfactants**  
(compns. and methods for using polymeric **suds** enhancers)
- IT 109-55-7DP, 3-Dimethylaminopropylamine, reaction products with alkene-maleic anhydride alternating copolymers 25154-86-3P, 2-(Dimethylamino)ethyl methacrylate homopolymer **26655-25-4P**, Acrylic acid-2-(Dimethylamino)ethyl methacrylate copolymer 28675-43-6P, 2-(Dimethylamino)ethyl methacrylate-methacrylic acid copolymer **53232-15-8P**, Acrylic acid-2-(Dimethylamino)ethyl methacrylate-methacrylic acid copolymer 108919-59-1DP, Maleic anhydride-1-octene alternating copolymer, reaction products with 3-dimethylaminopropylamine 131062-60-7P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide copolymer 135093-08-2DP, 1-Hexene-maleic anhydride alternating copolymer, reaction products with alkene-maleic anhydride alternating copolymers 225935-81-9P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide-methacrylic acid copolymer 311761-80-5P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(compns. and methods for using polymeric **suds** enhancers)
- IT 98-11-3D, Benzenesulfonic acid, alkyl derivs., salts, uses 7664-93-9D, Sulfuric acid, alkyl esters, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(compns. and methods for using polymeric **suds** enhancers)
- L74 ANSWER 14 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
1999:355863 Document No. 131:6894 **Liquid detergent compositions** comprising polymeric **suds** enhancers in removing greasy soils from dish ware, flatware, and pots and pans. Kasturi, Chandrika; Schafer, Michael Gayle; Sivik, Mark Robert; Kluesener, Bernard William; Scheper, William Michael (The Procter & Gamble Company, USA). PCT Int. Appl. WO 9927058 A1 19990603, 50 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DE, DK, EE, ES, FI, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US24853 19981120. PRIORITY: US 1997-66344 19971121; US 1998-87709 19980602.

AB **Liq. detergent compns.** comprise a polymer which is a **suds** enhancer and a **suds** vol. extender, and also for preventing re-deposition of grease during hand washing, also deterative agents, adjunct agents, and diamines. The polymer stabilizer has mol. wt. 1000-2,000,000 daltons and the **detergent compn.** a pH .apprx.4-12 (as 10% **soln.** in **detergent**). An example **detergent** contained alkyl sulfates 33.29, hydroxy fatty acid amide 4.2, amine oxide **surfactant** 4.8, alc. ethoxylate 1.0, MgCl<sub>2</sub> 0.72, Ca citrate 0.35, **suds** booster dimethylaminoethyl methacrylate-dimethylacrylamide copolymer 0.5%, and the balance water.

IT **26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer **53232-15-8P**  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (liq. dishwashing detergent compns. comprising polymeric foam stabilizer)

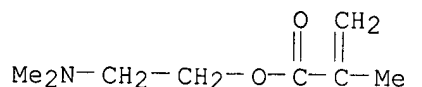
RN. 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

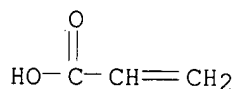
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CM 2

CRN 79-10-7

CMF C3 H4 O2



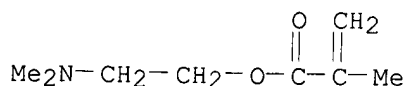
RN 53232-15-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

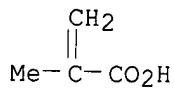
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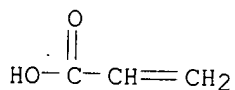
CMF C8 H15 N O2



CM 2

CRN 79-41-4  
CMF C4 H6 O2

CM 3

CRN 79-10-7  
CMF C3 H4 O2

IC ICM C11D003-37  
ICS C11D003-30

CC **46-6** (Surface Active Agents and Detergents)

ST polymer **suds** booster **dishwashing detergent**;  
dimethylaminoethyl methacrylate dimethylacrylamide copolymer **foam**  
stabilizer; **foam** stabilizer booster **dishwashing**  
**detergent**; anionic polymer **foam** stabilizer

IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(diamines, for grease removal while maintaining **suds**;  
**liq. dishwashing detergent compns**  
. comprising polymeric **foam** stabilizer and)

IT **Detergents**  
(**dishwashing**; **liq. dishwashing**  
**detergent compns.** comprising polymeric **foam**  
stabilizer)

IT Stabilizing agents  
(for **foam**; **liq. dishwashing**  
**detergent compns.** comprising polymeric **foam**  
stabilizer)

IT 2579-20-6, 1,3-Cyclohexanedimethanamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(for grease removal while maintaining **suds**; **liq.**  
**dishwashing detergent compns.** comprising  
polymeric **foam** stabilizer and)

IT 25154-86-3P, 2-(Dimethylamino)ethyl methacrylate homopolymer  
**26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate  
copolymer 28675-43-6P, 2-(Dimethylamino)ethyl methacrylate-methacrylic  
acid copolymer **53232-15-8P** 131062-60-7P, 2-  
(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide copolymer  
225935-81-9P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide-  
methacrylic acid copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP  
(Preparation); USES (Uses)  
(**liq. dishwashing detergent**  
**compns.** comprising polymeric **foam** stabilizer)



L74 ANSWER 15 OF 60 HCAPLUS COPYRIGHT 2002 ACS

1999:355862 Document No. 131:20607 **Liquid detergent**

**compositions** comprising polymeric **suds** enhancers in removing greasy soils from dish ware. Kasturi, Chandrika; Schafer, Michael Gayle; Sivik, Mark Robert; Kluesener, Bernard William; Scheper, William Michael (The Procter & Gamble Company, USA). PCT Int. Appl. WO 9927057 A1 19990603, 66 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US24852 19981120. PRIORITY: US 1997-66747 19971121; US 1998-87714 19980602; US 1998-91672 19980702.

AB **Liq. detergent compns.** comprise a polymer which is a **suds** enhancer and a **suds** vol. extender, and also for preventing re-deposition of grease during hand washing, also deterative agents, adjunct agents, and diamines. The polymer stabilizer comprises (i) units capable of having a cationic charge at a pH .apprx.4-12; provided it has an av. cationic charge d. .apprx.0.0005-0.05 units/100 daltons mol. wt. at a pH .apprx.4-12. An example **detergent** contained alkyl sulfates 33.29, hydroxy fatty acid amide 4.2, amine oxide **surfactant** 4.8, alc. ethoxylate 1.0, MgCl<sub>2</sub> 0.72, Ca citrate 0.35, **suds** booster dimethylaminoethyl methacrylate-dimethylacrylamide copolymer 0.5%, and the balance water.

IT **26655-25-4P**, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer **53232-15-8P**  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(**liq. dishwashing detergent**

**compns.** comprising polymeric **foam** stabilizer)

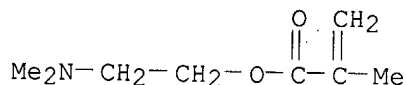
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

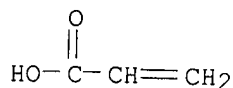
CMF C8 H15 N O2



CM 2

CRN 79-10-7

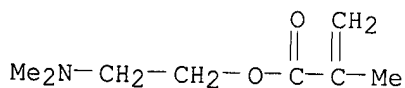
CMF C3 H4 O2



RN 53232-15-8 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl  
 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

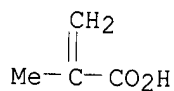
CM 1

CRN 2867-47-2  
 CMF C8 H15 N O2



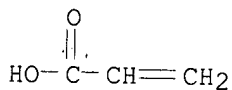
CM 2

CRN 79-41-4  
 CMF C4 H6 O2



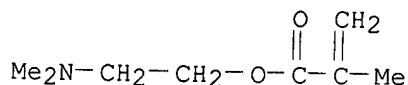
CM 3

CRN 79-10-7  
 CMF C3 H4 O2



IC ICM C11D003-37  
 ICS C11D003-30  
 CC 46-6 (Surface Active Agents and Detergents)  
 ST polymer suds booster **dishwashing detergent**;  
 dimethylaminoethyl methacrylate dimethylacrylamide copolymer foam  
 stabilizer; foam stabilizer booster **dishwashing**  
**detergent**; amino acid foam stabilizer; cationic polymer  
 foam stabilizer; zwitterionic polymer foam stabilizer  
 IT Amines, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (diamines, for grease removal while maintaining suds;  
 liq. **dishwashing detergent compns**  
 . comprising polymeric foam stabilizer and).  
 IT **Detergents**  
 (dishwashing; liq. dishwashing  
 detergent compns. comprising polymeric foam  
 stabilizer)  
 IT Stabilizing agents  
 (for foam; liq. dishwashing  
 detergent compns. comprising polymeric foam  
 stabilizer)

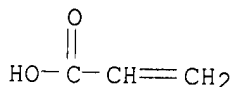
- IT Peptides, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(liq. dishwashing detergent  
compns. comprising polymeric foam stabilizer)
- IT 2077-90-9, 1,3-Bis(methylamino)cyclohexane  
RL: MOA (Modifier or additive use); USES (Uses)  
(for grease removal while maintaining suds; liq.  
dishwashing detergent compns. comprising  
polymeric foam stabilizer and)
- IT 109-55-7DP, 3-Dimethylaminopropylamine, reaction products with maleic anhydride copolymer 9001-63-2P, Lysozyme 25154-86-3P, 2-(Dimethylamino)ethyl methacrylate homopolymer 26655-25-4P, Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer 28675-43-6P, 2-(Dimethylamino)ethyl methacrylate-methacrylic acid copolymer 53232-15-8P 108919-59-1DP, Maleic anhydride-1-octene alternating copolymer, reaction products with dimethylaminopropylamine 131062-60-7P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide copolymer 135093-08-2DP, 1-Hexene-maleic anhydride alternating copolymer, reaction products with dimethylaminopropylamine 225935-81-9P, 2-(Dimethylamino)ethyl methacrylate-N,N-dimethylacrylamide-methacrylic acid copolymer 226084-79-3P, LX 1279  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(liq. dishwashing detergent  
compns. comprising polymeric foam stabilizer)
- L74 ANSWER 16 OF 60 HCAPLUS COPYRIGHT 2002 ACS  
1999:355859 Document No. 131:20588 Foam stable liquid  
dishwashing compositions and providing extended suds  
volume in dish cleaning. Kasturi, Chandrika; Schafer,  
Michael Gayle; Sivik, Mark Robert; Kluesener, Bernard William (The Procter & Gamble Company, USA). PCT Int. Appl. WO 9927053 A1 19990603, 45 pp.  
DESIGNATED STATES: W: CN, CZ, CZ, JP, MX, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US24699 19981120. PRIORITY: US 1997-66346 19971121; US 1998-87640 19980602.
- AB Zwitterionic polymer suds stabilizers are used in liq.  
detergent compns. for hand dishwashing. A 10%  
aq. soln. of this compn. has a pH 4-12. A liq.  
detergent (pH 7.4) contained alkyl sulfate 33.29, polyhydroxy  
fatty acid amide 4.2, amine oxide 4.8, ethoxylated C11 alc. 1.0, MgCl2  
0.72, Ca citrate 0.35, suds booster LX 1279 0.5%, and the  
balance water and minors.
- IT 26655-25-4, Acrylic acid-2-(dimethylamino)ethyl methacrylate  
copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(suds booster; foam stable liq. dishwashing  
compns. contg.)
- RN 26655-25-4 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
2-propenoic acid (9CI) (CA INDEX NAME)
- CM 1
- CRN 2867-47-2  
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



IC ICM C11D003-37

CC 46-5 (Surface Active Agents and Detergents)

ST polymeric **suds** booster **detergent liq**;  
zwitterionic polymer **suds** stabilizer; acrylic acid  
dimethylaminoethyl methacrylate copolymerIT **Detergents**(dishwashing; foam stable liq. dishwashing  
compsns.)

IT Stabilizing agents

(for foam, zwitterionic polymer; foam stable liq.  
**dishwashing** compsns. contg.)IT 109-55-7D, 3-Dimethylaminopropylamine, reaction products with maleic  
anhydride copolymer 25266-57-3D, 1-Hexene-maleic anhydride copolymer,  
reaction products with dimethylaminopropylamine 26655-25-4,  
Acrylic acid-2-(dimethylamino)ethyl methacrylate copolymer 108919-59-1D,  
Maleic anhydride-1-octene alternating copolymer, reaction products with  
dimethylaminopropylamine 226084-79-3, LX 1279

RL: MOA (Modifier or additive use); USES (Uses)

(suds booster; foam stable liq. dishwashing  
compsns. contg.)

L74 ANSWER 37 OF 60 HCAPLUS COPYRIGHT 2002 ACS

1988:571106 Document No. 109:171106 Manufacture of soap-free  
cationic emulsions. Akagi, Takeshi; Nakayama, Yosei (Kansai Paint Co.,  
Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63090508 A2 19880421 Showa, 6 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-235553 19861003.AB The stable title emulsions were prepd. by prepg. dispersion stabilizer by  
copolymer of (A) 5-80 parts amino group-contg. radical-polymerizable vinyl  
monomer and (B) 20-95 parts vinyl comonomer, followed by polymn. of the  
monomer B, then emulsion polymn. in the presence of the resulting graft  
copolymer after solubilization in water, as dispersion stabilizer.  
Styrene 150, Bu acrylate (I), 150, and dimethylaminoethyl methacrylate 100  
parts were polyd. in the presence of AIBN in Bu cellulose at 10.degree.  
for 2 h, treated with 100 parts styrene and 100 parts I in the presence of  
AIBN to obtain a 72.4%-solids graft copolymer soln. which (207 parts) was  
neutralized with AcOH and dispersed in 768 parts water, and 122 parts  
styrene and 178 parts I were polyd. in the presence of  
2,2'-azobis(2-amidinopropane).2HCl in the dispersion to give a  
34.1%-solids emulsion with good storability.

IT 117078-85-0D, reaction products with butylene oxide

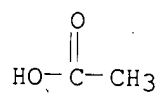
RL: USES (Uses)

(emulsifiers for emulsion polymn. of Bu acrylate and styrene)

RN 117078-85-0 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
butyl 2-propenoate and ethenylbenzene, acetate, graft (9CI) (CA INDEX  
NAME)

CM 1

CRN 64-19-7  
CMF C2 H4 O2

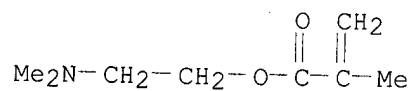


CM 2

CRN 114672-16-1  
CMF (C8 H15 N O2 . C8 H8 . C7 H12 O2)x  
CCI PMS  
CDES 8:PM,GRAFT

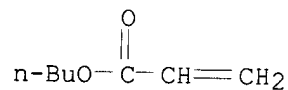
CM 3

CRN 2867-47-2  
CMF C8 H15 N O2



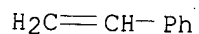
CM 4

CRN 141-32-2  
CMF C7 H12 O2



CM 5

CRN 100-42-5  
CMF C8 H8

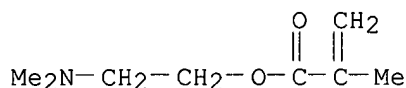


IT 114672-16-1

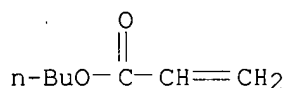
RL: USES (Uses)

(**emulsifiers**, for emulsion polymn. of Bu acrylate and

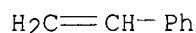
styrene)  
 RN 114672-16-1 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 butyl 2-propenoate and ethenylbenzene, graft (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 2867-47-2  
 CMF C8 H15 N O2



CM 2  
 CRN 141-32-2  
 CMF C7 H12 O2



CM 3  
 CRN 100-42-5  
 CMF C8 H8



IC ICM C08F002-22  
 ICS B01F017-52  
 CC 35-4 (Chemistry of Synthetic High Polymers)  
 ST cationic acrylic emulsion **soap free; emulsifier**  
 acrylic emulsion  
 IT **Quaternary ammonium** compounds, uses and miscellaneous  
 RL: USES (Uses)  
 (dimethylaminoethyl methacrylate copolymer-based, **emulsifiers**  
 , for emulsion polymn. of Bu acrylate and styrene)  
 IT Polymerization  
 (emulsion, of Bu acrylate and styrene, cationic **emulsifiers**  
 for)  
 IT 26249-20-7D, Butylene oxide, reaction products with dimethylaminoethyl  
 methacrylate copolymers **117078-85-0D**, reaction products with  
 butylene oxide  
 RL: USES (Uses)  
 (**emulsifiers** for emulsion polymn. of Bu acrylate and styrene)  
 IT **114672-16-1**  
 RL: USES (Uses)  
 (**emulsifiers**, for emulsion polymn. of Bu acrylate and  
 styrene)  
 IT 25767-47-9P, Butyl acrylate-styrene copolymer

RL: PREP (Preparation)  
(emulsions, **soap-free**, manuf. of, polymeric  
**emulsifiers** for)

L74 ANSWER 50 OF 60 HCAPLUS COPYRIGHT 2002 ACS

1983:489912 Document No. 99:89912 **Detergents**. (Kao Soap Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 58013700 A2 19830126 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-111693 19810717.

AB **Detergents** contain amphoteric copolymers prepd. from anionic vinyl monomers and cationic vinyl monomers. Thus, a **detergent** contg. a linear Na alkylbenzenesulfonate 20, a coconut fatty acid diethanolamide 5, acrylic acid-dimethylaminoethyl methacrylate copolymer (I) [26655-25-4] 1, and water 74% had **foam** height 75 mm and was used to wash 4-5 dishes, compared with 55 and 2, resp., for a **detergent** contg. no I.

IT 26655-25-4

RL: TEM (Technical or engineered material use); USES (Uses)  
(**detergents** contg.)

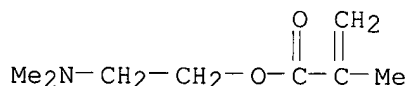
RN 26655-25-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

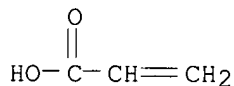
CMF C8 H15 N O2



CM 2

CRN 79-10-7

CMF C3 H4 O2



IC C11D003-37

ICA C08F020-34; C08F020-60

CC 46-6 (Surface Active Agents and Detergents)

ST amphoteric vinyl copolymer **detergent**; acrylic acid copolymer **detergent**; methylaminoethyl methacrylate copolymer **detergent**; dishwashing **detergent** alkylbenzenesulfonate polymer

IT Polyoxyalkylenes

RL: USES (Uses)

(alkyl ether sulfates, for **detergents**, contg. amphoteric polymers)

IT Vinyl compounds, polymers

RL: USES (Uses)

(amphoteric polymers, **detergents** contg.)

IT Polymers, uses and miscellaneous

RL: USES (Uses)  
(amphoteric, **detergents** contg.)

IT Alcohols, compounds  
RL: USES (Uses)  
(ethoxylated, sulfates, for **detergents**, contg. amphoteric polymers)

IT **Detergents**  
(dishwashing, contg. amphoteric polymers)

IT 26655-25-4 73565-50-1 86828-31-1 86828-32-2 86828-33-3  
86828-34-4 86828-35-5 86828-36-6 86828-38-8 86828-39-9  
86828-40-2 86828-41-3 86828-42-4  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**detergents** contg.)

IT 75-21-8D, reaction products with alcs., sulfates 98-11-3D, alkyl  
derivs., sodium salts 112-00-5  
RL: USES (Uses)  
(**detergents**, contg. amphoteric polymers)

=> d L76 1-54 ti

L76 ANSWER 1 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Charge-modified dye absorption media for the wash, polyester article  
manufacture and dye scavaging of wash liquor

L76 ANSWER 2 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI N-vinyl lactam-based graft copolymers and their compositions and  
preparation

L76 ANSWER 3 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Microcapsules and nanocapsules with positively charged surfaces for  
treating textiles, hair and skin

L76 ANSWER 4 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Method for washing and conditioning of textile and aqueous **laundry  
detergent**

L76 ANSWER 5 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Soil sequestering articles impregnated with **quaternary  
ammonium** compounds

L76 ANSWER 6 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Composition for treating dandruffs in hair and scalp based on an  
antidandruff agent and an acrylic terpolymer

L76 ANSWER 7 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Perfuming of **rinse** conditioner **compositions**

L76 ANSWER 8 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Polymer pastes for use with **laundrying** machines

L76 ANSWER 9 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Ink-jet recording paper **containing cationic** resin and  
silica

L76 ANSWER 10 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Composition for the biocidal treatment of surfaces

L76 ANSWER 11 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Neutralized paper and its production method



- L76 ANSWER 12 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Method and apparatus for color image formation according to ink-jet printing process
- L76 ANSWER 13 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Cleaning process using carbon dioxide as a solvent and employing molecularly engineered **surfactants**
- L76 ANSWER 14 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI. Electrostatographic toner, developer containing the toner, and method for forming image
- L76 ANSWER 15 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Thermoplastic polymer compositions **containing** quaternary **cationic** group-**containing** polymers with good water resistance and lasting antistatic properties
- L76 ANSWER 16 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Conditioning **shampoo** compositions
- L76 ANSWER 17 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Coating compositions and coated paper for ink-jet printing
- L76 ANSWER 18 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Body wash **compositions** containing anionic **cleansing surfactants** polymeric cationic conditioning compounds and quaternized phosphate esters
- L76 ANSWER 19 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Concentrate compositions and container of a dose of concentrate for dilution to a viscous **cleaner**, conditioner, or disinfectant
- L76 ANSWER 20 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Hair preparations containing amphoteric polymers and polyoxyalkylene ethers
- L76 ANSWER 21 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI **Liquid** personal **cleansing compositions** containing short-chain alkyl sulfate and alkyl ethoxy sulfate **surfactants**
- L76 ANSWER 22 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI **Cleaning compositions** for **hard surface**
- L76 ANSWER 23 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Alkaline paper sheets showing retention of size effect
- L76 ANSWER 24 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Hair-**cleansing** and -strengthening **composition** containing anionic **surfactant**, ionic polymers, and insoluble component
- L76 ANSWER 25 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic paper sizes and their preparation
- L76 ANSWER 26 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Flocculant for removing finely divided solids from nonpolar liquids such as solvents

- L76 ANSWER 27 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Fabric softeners for **laundering** garments in automatic washing machines
- L76 ANSWER 28 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI **Laundry** aid **compositions** with good storability
- L76 ANSWER 29 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of toners with high positive charge
- L76 ANSWER 30 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of vinylpyrrolidone und vinylimidazole copolymers and their use as dye transfer inhibitors in **laundering**
- L76 ANSWER 31 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Coemulsion and electrodeposition properties of mixtures of cationic epoxy resin and **cationic** acrylic resin **containing** blocked-isocyanate groups
- L76 ANSWER 32 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Coemulsion and electrodeposition properties of mixtures of cationic epoxy resin and **cationic** acrylic resin **containing** butoxymethylamide groups
- L76 ANSWER 33 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Cationic polymer emulsion-type sizes for paper
- L76 ANSWER 34 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of cationic polymers and their use as thickeners for aqueous acid solutions
- L76 ANSWER 35 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Stable, medium-viscosity, aqueous fabric softening compositions
- L76 ANSWER 36 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Hydrophobic dye-containing cathodic electrodepositable compositions and their coating process
- L76 ANSWER 37 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Acidic **disinfectant** all-purpose **liquid cleaning composition**, especially for removing **soap** scum and mineral deposits
- L76 ANSWER 38 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Preparation of toners for electrostatic image development
- L76 ANSWER 39 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Dissolution retarders and automatic fragrant **cleaning compositions** containing them
- L76 ANSWER 40 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Storage-stable cationic polymer compositions for paper sizes
- L76 ANSWER 41 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Resin compositions for water-thinned coatings curable at low temperature
- L76 ANSWER 42 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI **Rinse** aid **composition**

L76 ANSWER 43 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Electrophotographic developer compositions

L76 ANSWER 44 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Hair preparations containing ionic polymers and carboxylic acid salts

L76 ANSWER 45 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Electrostatographic suspension developer

L76 ANSWER 46 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Capsule toners

L76 ANSWER 47 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Toners for electrostatic image development

L76 ANSWER 48 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Regeneration or recycling of aqueous **degreasing** and **cleaning solutions**

L76 ANSWER 49 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Washing composition

L76 ANSWER 50 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Polymer beads with uniform particle size

L76 ANSWER 51 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Polyamine-chromic acid ionic polymers and aqueous **cationic** electrocoat systems **containing** them

L76 ANSWER 52 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI **Dry-cleaning compositions**

L76 ANSWER 53 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Transparent hair rinses

L76 ANSWER 54 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
TI Coatings for electrical insulation

=> d L76 3,4,7-11,14-16,37,50 cbib abs hitstr hitind

L76 ANSWER 3 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
2001:635956 Document No. 135:215738 Microcapsules and nanocapsules with positively charged surfaces for treating textiles, hair and skin. Eisfeld, Wolf; Krupp, Ute; Lossack, Annett; Scheidgen, Arndt; Braun, Verena (Henkel Kommanditgesellschaft auf Aktien, Germany). PCT Int. Appl. WO 2001062376 A1 20010830, 66 pp. DESIGNATED STATES: W: AU, BR, CA, CN, CZ, DZ, HU, ID, IL, IN, JP, KR, MX, PL, RO, RU, SG, SI, SK, UA, US, ZA; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (German). CODEN: PIXXD2. APPLICATION: WO 2001-EP1887 20010220. PRIORITY: DE 2000-10008306 20000223; DE 2000-10008307 20000223; DE 2000-10008305 20000223.

AB The invention relates to microcapsules and nanocapsules with pos. charged surfaces and have specific affinity to substrates such as textiles, hair or skin; even after treatment with water, at least up to a certain portion remains on these substrates. The capsules can be diversely used, in particular, in washing and cleaning agents as well as in cosmetics. Thus 10 mL of a suspension contg. 40% microcapsules filled with rose oil (neg. surface charge) were suspended in 50 mL 0.25 wt./wt.% Cetrimonium chloride (Dehyquart A) cationic soln. Pos. charged surface was formed; the change

in charge was detected by zeta-potential measurement. The suspension was dild. with 7 parts demineralized water and pH 5.0 was set with citric acid. Hair strands were dipped into the suspension for 15 s, rinsed with water for 1 min., and dried. The adhesion of the microcapsules was tested by sensing the odor and microscopically; 3 adhered microcapsules per 0.1 mm hair were detected.

IT 30581-59-0

RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(microcapsules and nanocapsules with pos. charged surfaces for treating textiles, hair and skin)

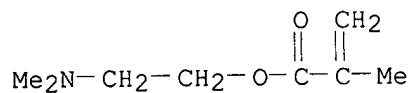
RN 30581-59-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

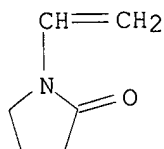
CMF C8 H15 N O2



CM 2

CRN 88-12-0

CMF C6 H9 N O



IC ICM B01J013-02

ICS A61K007-00; C11D017-00; D06M023-12

CC 62-2 (Essential Oils and Cosmetics)

Section cross-reference(s): 40, 46

IT Adhesion, physical

Antimicrobial agents

Antistatic agents

Cosmetics

Fabric finishing

Fabric softeners

Hair

Impregnating materials

**Laundering**

Microcapsules

Skin

Soilproofing agents

Surface electric charge

Textiles

pH

(microcapsules and nanocapsules with pos. charged surfaces for treating

textiles, hair and skin)

IT **Soaps**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(microcapsules and nanocapsules with pos. charged surfaces for treating textiles, hair and skin)

IT Gelatins, biological studies

Polyamides, biological studies

Polyphosphates

Polysaccharides, biological studies

Polysiloxanes, biological studies

**Quaternary ammonium** compounds, biological studies

RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(microcapsules and nanocapsules with pos. charged surfaces for treating textiles, hair and skin)

IT 107-25-5D, Methylvinyl ether, polymers of 112-02-7, Cetrimonium chloride

506-59-2D, Dimethylammoniumchloride, dialkyl deriv. 593-51-1D,

Methylammoniumchloride, trialkyl deriv. 593-81-7D,

Trimethylammoniumchloride, alkyl deriv. 1398-61-4, Chitin 9000-01-5,

Gum arabic 9002-89-5, Polyvinylalcohol 9003-39-8, Polyvinylpyrrolidone

9003-53-6, Polystyrene 9004-34-6, Cellulose, biological studies

9004-35-7, Celluloseacetate 9004-36-8, Celluloseacetatebutyrate

9004-57-3, Ethylcellulose 9004-62-0, Hydroxyethylcellulose 9004-67-5,

Methylcellulose 9005-25-8, Starch, biological studies 9012-36-6,

Agarose 9012-76-4, Chitosan 15802-18-3D, Cyanoacrylic acid, polymers

of 25233-30-1, Polyaniline 26023-30-3D, Poly[oxy(1-methyl-2-oxo-1,2-

ethanediyl)], polymers of 29297-55-0, Vinylimidazole-vinylpyrrolidone

copolymer 29463-06-7 **30581-59-0** 30604-81-0 37205-99-5,

Carboxymethylethylcellulose

RL: BUU (Biological use, unclassified); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(microcapsules and nanocapsules with pos. charged surfaces for treating textiles, hair and skin)

L76 ANSWER 4 OF 54 HCAPLUS COPYRIGHT 2002 ACS

2001:320048 Document No. 134:328233 Method for washing and conditioning of

textile and aqueous **laundry detergent**. Poirier,

Philippe; Bossard, Isabelle (Reckitt Benckiser France, Fr.; Reckitt

Benckiser (UK) Limited). PCT Int. Appl. WO 2001030951 A1 20010503, 23 pp.

DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH,

CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,

IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,

MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,

TM, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU,

TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR,

GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG.

(English). CODEN: PIXXD2. APPLICATION: WO 2000-GB4076 20001023.

PRIORITY: EP 1999-402611 19991022; GB 1999-29581 19991216.

AB A washing and conditioning method uses, in the main wash, .gtoreq.1

cleansing (anionic and/or nonionic) **surfactants** and .gtoreq.1

org. **quaternary ammonium** polymers. Use of such

polymers in the main wash gives good textile conditioning, e.g.,

softening. The **surfactant(s)** and polymer(s) may be added in 1

aq. co-formulation. A typical main wash **laundry**

**detergent** contained Jaguar C 13S 0.6, Na dodecylbenzenesulfonate

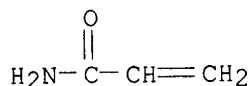
(Bio-Soft D 40 RC) 25.8, Steol 4N 25.0, N,N-dimethylaurylamine N-oxide

(Ninox DMCD-40) 1.6, N,N-bis(hydroxyethyl) coco amide (Agent 565-14 RC)

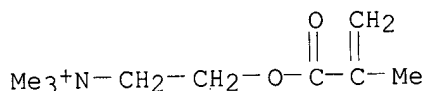
1.0, Miranol CS Conc. 2.0, perfumes and colorants <5, and pH modifiers,

viscosity additives and preservatives <5%, in H2O.

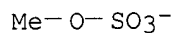
IT 26006-22-4, Polyquaternium 5 26161-33-1, Polyquaternium  
 37 27103-90-8, Polyquaternium 14 35429-19-7,  
 Polyquaternium 15 53633-54-8, Polyquaternium 11  
 60494-40-8, Polyquaternium 36 68877-47-4, Polyquaternium  
 13 68877-50-9, Polyquaternium 12 69418-26-4,  
 Polyquaternium 33 130291-58-6, Polyquaternium 9  
 146189-14-2, Polyquaternium 8 147398-77-4,  
 Polyquaternium 30 251352-56-4  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (textile washing and conditioning method and use of aq. laundry  
 detergent contg. quaternary ammonium  
 polymers)  
 RN 26006-22-4 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl  
 sulfate, polymer with 2-propenamide (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 79-06-1  
 CMF C3 H5 N O



CM 2  
 CRN 6891-44-7  
 CMF C9 H18 N O2 . C H3 O4 S  
 CM 3  
 CRN 33611-56-2  
 CMF C9 H18 N O2

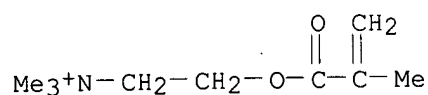


CM 4  
 CRN 21228-90-0  
 CMF C H3 O4 S



RN 26161-33-1 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
 chloride, homopolymer (9CI) (CA INDEX NAME)  
 CM 1

CRN 5039-78-1  
CMF C9 H18 N O2 . Cl

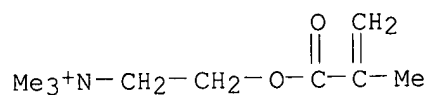


● Cl<sup>-</sup>

RN 27103-90-8 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, homopolymer (9CI) (CA INDEX NAME)

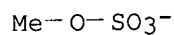
CM 1

CRN 33611-56-2  
CMF C9 H18 N O2



CM 2

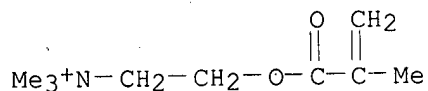
CRN 21228-90-0  
CMF C H3 O4 S



RN 35429-19-7 HCAPLUS  
CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

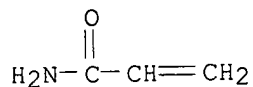
CM 1

CRN 5039-78-1  
CMF C9 H18 N O2 . Cl



Cl<sup>-</sup>

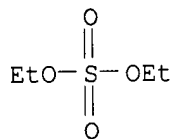
CM 2

CRN 79-06-1  
CMF C3 H5 N O

RN 53633-54-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
1-ethenyl-2-pyrrolidinone, compd. with diethyl sulfate (9CI) (CA INDEX  
NAME)

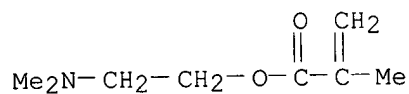
CM 1

CRN 64-67-5  
CMF C4 H10 O4 S

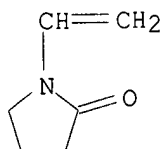
CM 2

CRN 30581-59-0  
CMF (C8 H15 N O2 . C6 H9 N O)x  
CCI PMS

CM 3

CRN 2867-47-2  
CMF C8 H15 N O2

CM 4

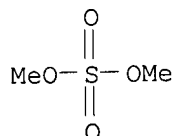
CRN 88-12-0  
CMF C6 H9 N O



RN 60494-40-8 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 methyl 2-methyl-2-propenoate, compd. with dimethyl sulfate (9CI) (CA  
 INDEX NAME)

CM 1

CRN 77-78-1  
 CMF C2 H6 O4 S

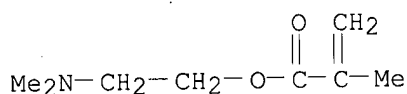


CM 2

CRN 26222-42-4  
 CMF (C8 H15 N O2 . C5 H8 O2) x  
 CCI PMS

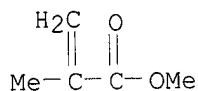
CM 3

CRN 2867-47-2  
 CMF C8 H15 N O2



CM 4

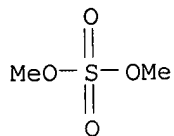
CRN 80-62-6  
 CMF C5 H8 O2



RN 68877-47-4 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(diethylamino)ethyl ester, polymer with  
 ethyl 2-methyl-2-propenoate and (9Z)-9-octadecenyl 2-methyl-2-propenoate,  
 compd. with dimethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1  
 CMF C2 H6 O4 S



CM 2

CRN 68877-46-3

CMF (C22 H40 O2 . C10 H19 N O2 . C6 H10 O2)x

CCI PMS

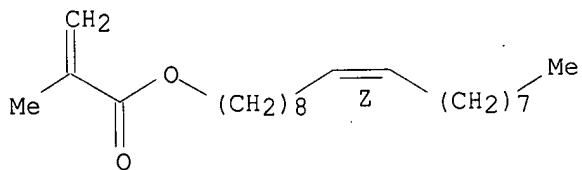
CM 3

CRN 13533-08-9

CMF C22 H40 O2

CDES 2:Z

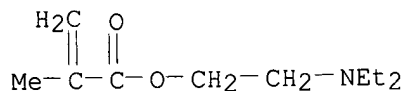
Double bond geometry as shown.



CM 4

CRN 105-16-8

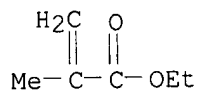
CMF C10 H19 N O2



CM 5

CRN 97-63-2

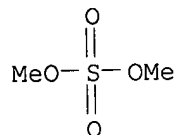
CMF C6 H10 O2



RN 68877-50-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [(1R,4aR,4bR,10aR)-1,2,3,4,4a,4b,5,6,10,10a-decahydro-1,4a-dimethyl-7-(1-methylethyl)-1-phenanthrenyl]methyl ester, polymer with 2-(diethylamino)ethyl 2-methyl-2-propenoate and ethyl 2-methyl-2-propenoate, compd. with dimethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1  
CMF C2 H6 O4 S

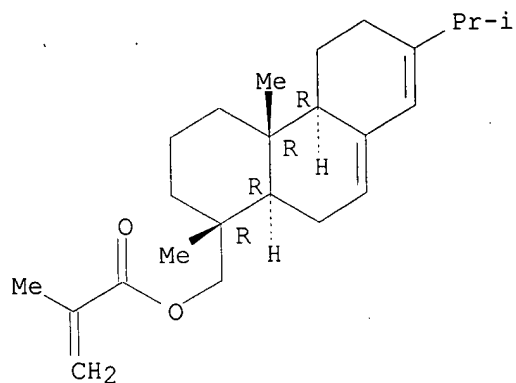
CM 2

CRN 68877-49-6  
CMF (C24 H36 O2 . C10 H19 N O2 . C6 H10 O2) x  
CCI PMS

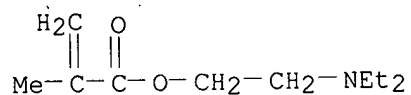
CM 3

CRN 68877-48-5  
CMF C24 H36 O2  
CDES 1:1R2:1A, 4AB, 4BA, 10AA

Absolute stereochemistry.

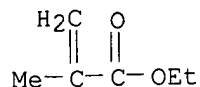


CM 4

CRN 105-16-8  
CMF C10 H19 N O2

CM 5

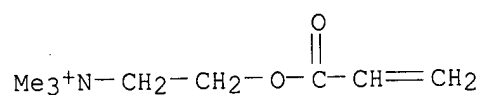
CRN 97-63-2  
CMF C6 H10 O2



RN 69418-26-4 HCAPLUS  
 CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propenyl)oxy]-, chloride,  
 polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

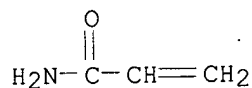
CRN 44992-01-0  
 CMF C8 H16 N O2 . Cl



● Cl<sup>-</sup>

CM 2

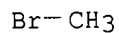
CRN 79-06-1  
 CMF C3 H5 N O



RN 130291-58-6 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, homopolymer,  
 compd. with bromomethane (9CI) (CA INDEX NAME)

CM 1

CRN 74-83-9  
 CMF C H3 Br

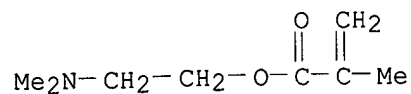


CM 2

CRN 25154-86-3  
 CMF (C8 H15 N O2)x  
 CCI PMS

CM 3

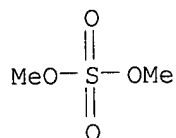
CRN 2867-47-2  
CMF C8 H15 N O2



RN 146189-14-2 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with methyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate, compd. with dimethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 77-78-1  
CMF C2 H6 O4 S

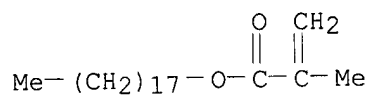


CM 2

CRN 41510-85-4  
CMF (C22 H42 O2 . C8 H15 N O2 . C5 H8 O2)x  
CCI PMS

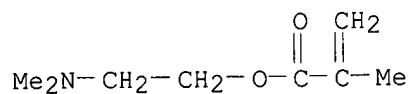
CM 3

CRN 32360-05-7  
CMF C22 H42 O2



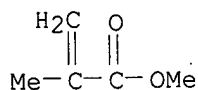
CM 4

CRN 2867-47-2  
CMF C8 H15 N O2



CM 5

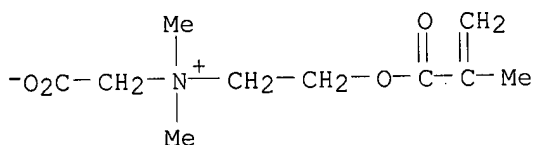
CRN 80-62-6  
CMF C5 H8 O2



RN 147398-77-4 HCAPLUS  
CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

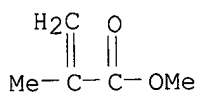
CM 1

CRN 62723-61-9  
CMF C10 H17 N O4



CM 2

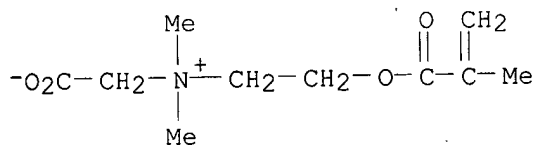
CRN 80-62-6  
CMF C5 H8 O2



RN 251352-56-4 HCAPLUS  
CN Ethanaminium, N-(carboxymethyl)-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, inner salt, polymer with N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 62723-61-9  
CMF C10 H17 N O4

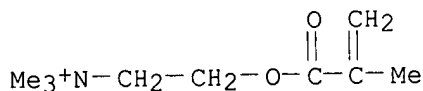


CM 2

CRN 6891-44-7  
CMF C9 H18 N O2 . C H3 O4 S

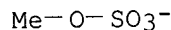
CM 3

CRN 33611-56-2  
CMF C9 H18 N O2



CM 4

CRN 21228-90-0  
CMF C H3 O4 S



- IC ICM C11D003-00  
ICS C11D003-22; C11D003-37; C11D017-00; C11D001-83; C11D003-38
- CC **46-5** (Surface Active Agents and Detergents)
- ST **laundry detergent quaternary ammonium** polymer fabric softener; guar gum hydroxytrimethylammoniopropyl ether textile conditioning **laundry detergent**
- IT Onium compounds  
RL: TEM (Technical or engineered material use); USES (Uses)  
(4,5-dihydro-1-(hydroxyethyl)-1-(2-hydroxy-3-sulfopropyl)-2-norcoco alkyl imidazolium, hydroxides, inner salts, monosodium salts; textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)
- IT Sulfonic acids, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C14-16-1-alkenesulfonic, sodium salts, **surfactants**, Witconate AOS; textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)
- IT **Surfactants**  
(anionic; textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)
- IT Textiles  
(cellulosic; textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)
- IT Amides, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coco, N,N-bis(hydroxyethyl), Agent 565-14RC; textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)
- IT Acrylic fibers, processes  
Polyamide fibers, processes

Polyester fibers, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(fabrics; textile washing and conditioning method and use of aq.  
**laundry detergent** contg. **quaternary**  
**ammonium** polymers)

IT **Detergents**

(**laundry**, liq.; textile washing and conditioning  
method and use of aq. **laundry detergent** contg.  
**quaternary ammonium** polymers)

IT **Surfactants**

(nonionic; textile washing and conditioning method and use of aq.  
**laundry detergent** contg. **quaternary**  
**ammonium** polymers)

IT **Quaternary ammonium** compounds, uses

RL: NUU (Other use, unclassified); USES (Uses)  
(polymers; textile washing and conditioning method and use of aq.  
**laundry detergent** contg.)

IT Gums and Mucilages

Washing

(textile washing and conditioning method and use of aq. **laundry**  
**detergent** contg. **quaternary ammonium**  
polymers)

IT Carbohydrates, uses

Proteins, general, uses

RL: NUU (Other use, unclassified); USES (Uses)  
(textile washing and conditioning method and use of aq. **laundry**  
**detergent** contg. **quaternary ammonium**  
polymers)

IT Rayon, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(textile washing and conditioning method and use of aq. **laundry**  
**detergent** contg. **quaternary ammonium**  
polymers)

IT 26590-05-6, Polyquaternium 7

RL: TEM (Technical or engineered material use); USES (Uses)  
(Mirapol 550; textile washing and conditioning method and use of aq.  
**laundry detergent** contg. **quaternary**  
**ammonium** polymers)

IT 25155-30-0, Benzenesulfonic acid, dodecyl-, sodium salt

RL: TEM (Technical or engineered material use); USES (Uses)  
(**surfactant**, Bio-Soft D 40RC; textile washing and  
conditioning method and use of aq. **laundry detergent**  
contg. **quaternary ammonium** polymers)

IT 1643-20-5, Laurylamine oxide

RL: TEM (Technical or engineered material use); USES (Uses)  
(**surfactant**, Ninox DMCD 40; textile washing and conditioning  
method and use of aq. **laundry detergent** contg.  
**quaternary ammonium** polymers)

IT 9004-82-4, Polyethylene glycol lauryl ether sulfate sodium salt

RL: TEM (Technical or engineered material use); USES (Uses)  
(**surfactant**, Sipon LES 328; textile washing and conditioning  
method and use of aq. **laundry detergent** contg.  
**quaternary ammonium** polymers)

IT 83138-08-3, Dehyton 'k' 111214-80-3, Sulfofon 101

RL: TEM (Technical or engineered material use); USES (Uses)  
(**surfactant**; textile washing and conditioning method and use  
of aq. **laundry detergent** contg. **quaternary**  
**ammonium** polymers)

IT 1398-61-4D, Chitin, **quaternary ammonium**-contg. derivs.

9000-30-0, Guar 9005-79-2D, Glycogen, **quaternary**



**ammonium-contg. derivs.**, uses 65497-29-2, Jaguar C 13S  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)

IT 25136-75-8, Polyquaternium 39 **26006-22-4**, Polyquaternium 5  
 26062-79-3, Polyquaternium 6 **26161-33-1**, Polyquaternium 37  
**27103-90-8**, Polyquaternium 14 31512-74-0, Polyquaternium 42  
**35429-19-7**, Polyquaternium 15 **53633-54-8**, Polyquaternium  
 11 53694-17-0, Polyquaternium 22 **60494-40-8**, Polyquaternium 36  
 63451-27-4, Polyquaternium 2 **68877-47-4**, Polyquaternium 13  
**68877-50-9**, Polyquaternium 12 **69418-26-4**, Polyquaternium  
 33 75345-27-6, Polyquaternium 1 81859-24-7, Celquat SC 240C  
 92183-41-0, Polyquaternium 4 95144-24-4, Polyquaternium 16 98616-25-2,  
 Polyquaternium 24 110736-85-1, Polyquaternium 19 110736-86-2,  
 Polyquaternium 20 113784-58-0, Polyquaternium 18 **130291-58-6**,  
 Polyquaternium 9 131954-48-8, Polyquaternium 28 132977-85-6,  
 Polyquaternium 27 **146189-14-2**, Polyquaternium 8  
**147398-77-4**, Polyquaternium 30 148506-50-7, Polyquaternium 17  
 148880-30-2, Polyquaternium 29 150599-70-5, Polyquaternium 44  
 174761-16-1, Polyquaternium 46 178535-77-8, Polyquaternium 26  
 189767-67-7, Polyquaternium 31 189767-68-8, Polyquaternium 34  
 189767-69-9, Polyquaternium 35 197969-51-0, Polyquaternium 47  
**251352-56-4** 336879-27-7, Polyquaternium 43

RL: TEM (Technical or engineered material use); USES (Uses)  
 (textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)

IT 9004-34-6D, Cellulose, derivs., processes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (textiles; textile washing and conditioning method and use of aq. **laundry detergent** contg. **quaternary ammonium** polymers)

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2000:814594 Document No. 133:364036 Perfuming of **rinse** conditioner **compositions**. Elmes, Alfred Roy; Fraser, Stuart B.; Khosdel, Ezat; Martin, Alexander; Martin, John Robert; Sherrington, David Collin (Unilever N.V., Neth.; Unilever PLC; Hindustan Lever Ltd.). PCT Int. Appl. WO 2000068352 A1 20001116, 49 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-EP3279 20000412. PRIORITY: GB 1999-10389 19990505.

AB A compn. for use in the rinsing of **laundry** contains particles with perfume located or absorbed in or on the particles. The particles are formed of crosslinked org. polymeric material, e.g., styrene-divinylbenzene copolymer, that have a mean particle size .ltoreq.1 .mu.m. The compn. is preferably a fabric softener, e.g., bis(hydrogenated tallow alkyl)dimethylammonium chlorides. A method of treating **laundry** with the compn. is also provided.

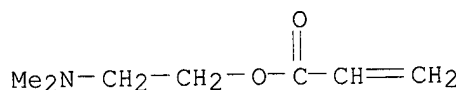
IT **307498-87-9**, Butyl acrylate-Dimethylaminoethyl acrylate-Ethylene glycol dimethacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)  
 (crosslinked, particles; perfuming of **rinse** conditioner **compsns.** with polymer particle-supported perfumes)

RN 307498-87-9 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with butyl  
 2-propenoate and 2-(dimethylamino)ethyl 2-propenoate (9CI) (CA INDEX  
 NAME)

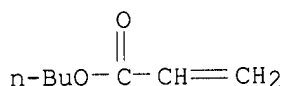
CM 1

CRN 2439-35-2  
 CMF C7 H13 N O2



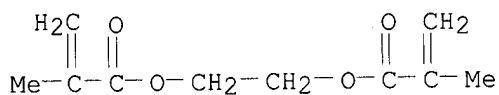
CM 2

CRN 141-32-2  
 CMF C7 H12 O2



CM 3

CRN 97-90-5  
 CMF C10 H14 O4



IC ICM C11D003-50  
 ICS C11D003-37

CC 46-5 (Surface Active Agents and Detergents)

ST **laundry** rinse perfume crosslinked polymer particle support;  
 styrene divinylbenzene crosslinked particle support perfume  
**laundry** rinse; hydrogenated tallow dimethylammonium chloride  
 fabric softener blend perfume particle

IT **Quaternary ammonium** compounds, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (bis(hydrogenated tallow alkyl)dimethyl, chlorides, fabric  
 conditioners; perfuming of **rinse** conditioner **compns**  
 . with polymer particle-supported perfumes)

IT Fabric softeners  
 Perfumes

(perfuming of **rinse** conditioner **compns.** with  
 polymer particle-supported perfumes)

IT **Laundering**

(rinsing; perfuming of **rinse** conditioner **compns.**  
 with polymer particle-supported perfumes)

IT **Quaternary ammonium** compounds, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (trimethyltallow alkylammonium chlorides, fabric conditioners;  
 perfuming of **rinse** conditioner **compns.** with polymer  
 particle-supported perfumes)

IT 9003-70-7, Divinylbenzene-Styrene copolymer **307498-87-9**, Butyl  
 acrylate-Dimethylaminoethyl acrylate-Ethylene glycol dimethacrylate  
 copolymer

RL: TEM (Technical or engineered material use); USES (Uses)  
 (crosslinked, particles; perfuming of **rinse** conditioner  
**compns.** with polymer particle-supported perfumes)

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2000:654611 Document No. 133:254241 Polymer pastes for use with  
**laundering** machines. Yui, Koji; Oda, Takashi; Hasegawa, Miki (Kao  
 Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000256964 A2 20000919, 6 pp.  
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-63141 19990310.

AB Polymers have properties a .gtoreq. 90% and b-a ratio .ltoreq. 0.7, where  
 a is the permeability for a soln. contg. 5% polymer and 10% nonpolymeric  
 electrolytes and b is the permeability after the soln. is dild. 5000% with  
 water. Thus, a soln. contained 2-acrylamido-2-methylpropanesulfonic acid  
 Na salt-2-(methacryloyloxy)ethyltrimethylethylammonium Et sulfate copolymer  
 and Na sulfate.

IT **26161-33-1P**, Poly(2-(methacryloyloxy)ethyltrimethylammonium  
 chloride) **28675-43-6P**, N,N-Dimethylaminoethyl  
 methacrylate-methacrylic acid copolymer **294624-15-0P**,  
 2-Acrylamido-2-methylpropanesulfonic acid sodium salt-2-  
 (methacryloyloxy)ethyltrimethylethylammonium ethyl sulfate copolymer  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (polymer pastes for use with **laundering** machines)

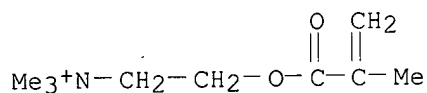
RN 26161-33-1 HCAPLUS

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-,  
 chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5039-78-1

CMF C9 H18 N O2 . Cl



● Cl<sup>-</sup>

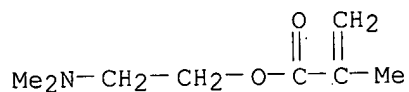
RN 28675-43-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(dimethylamino)ethyl.  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

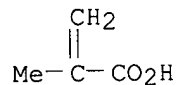
CMF C8 H15 N O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



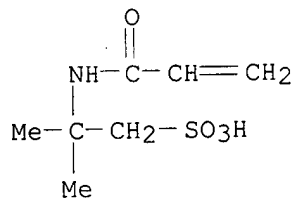
RN 294624-15-0 HCAPLUS

CN Ethanaminium, N-ethyl-N,N-dimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, ethyl sulfate, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 5165-97-9

CMF C7 H13 N O4 S . Na



● Na

CM 2

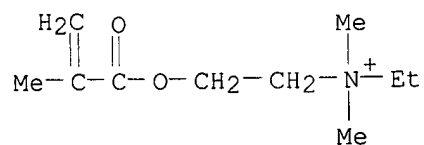
CRN 13223-03-5

CMF C10 H20 N O2 . C2 H5 O4 S

CM 3

CRN 48063-69-0

CMF C10 H20 N O2



CM 4

CRN 48028-76-8  
CMF C2 H5 O4 S

Et-O-SO<sub>3</sub><sup>-</sup>

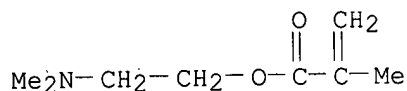
- IC ICM D06M015-29  
CC **46-6** (Surface Active Agents and Detergents)  
ST **laundrying** paste acrylamidomethylpropanesulfonic acid methacryloyloxyethyl dimethylethyl ammonium copolymer; **quaternary ammonium** polymer **laundrying** paste; washer **laundrying** polymer paste  
IT Polyelectrolytes  
(amphoteric; polymer pastes for use with **laundrying** machines)  
IT Polyelectrolytes  
(anionic; polymer pastes for use with **laundrying** machines)  
IT Polyelectrolytes  
(cationic; polymer pastes for use with **laundrying** machines)  
IT Electrolytes  
**Laundrying**  
Pastes  
Permeability  
(polymer pastes for use with **laundrying** machines)  
IT Fibers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymer pastes for use with **laundrying** machines)  
IT **Quaternary ammonium** compounds, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polymers; polymer pastes for use with **laundrying** machines)  
IT Polymerization  
(radical; polymer pastes for use with **laundrying** machines)  
IT **26161-33-1P**, Poly(2-(methacryloyloxy)ethyltrimethylammonium chloride) **28675-43-6P**, N,N-Dimethylaminoethyl methacrylate-methacrylic acid copolymer 35641-59-9P **294624-15-0P**, 2-Acrylamido-2-methylpropanesulfonic acid sodium salt-2-(methacryloyloxy)ethyl dimethylethyl ammonium ethyl sulfate copolymer.  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polymer pastes for use with **laundrying** machines)
- L76 ANSWER 9 OF 54 HCAPLUS COPYRIGHT 2002 ACS  
2000:634872 Document No. 133:230408 Ink-jet recording paper containing **cationic** resin and silica. Suzuki, Akira; Sunakawa, Hirokazu; Asano, Shinichi (Oji Paper Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000247021 A2 20000912, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-56837 19990304.
- AB The paper comprises a substrate coated with .gtoreq.1 recording layers 1 of which contains a **cationic** copolymer having silanol groups and tertiary amino or quaternary ammonium salt groups and silica fine particles of which the av. particle diams. of the primary and secondary particles are 3-40 and 10-500 nm, resp. The paper shows high gloss, ink absorption, and surface strength and provides high d. images.
- IT **211321-44-7P**, Butyl acrylate-KBM 503-Light Ester DM-styrene copolymer  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)  
 (ink-jet printing paper **contg. cationic** resin and  
 silica)

RN 211321-44-7 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
 butyl 2-propenoate, ethenylbenzene and 3-(trimethoxysilyl)propyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

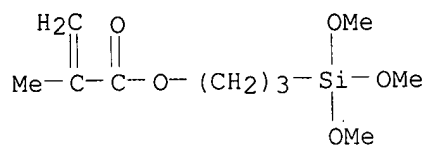
CM 1

CRN 2867-47-2  
 CMF C8 H15 N O2



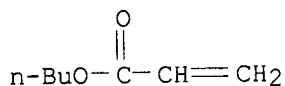
CM 2

CRN 2530-85-0  
 CMF C10 H20 O5 Si



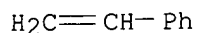
CM 3

CRN 141-32-2  
 CMF C7 H12 O2



CM 4

CRN 100-42-5  
 CMF C8 H8



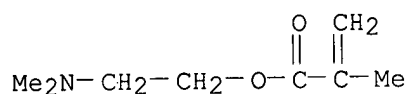
IT 292044-96-3, Ethyl acrylate-KBM 503-Light Ester DM-styrene  
 copolymer

RL: TEM (Technical or engineered material use); USES (Uses)  
 (ink-jet printing paper **contg. cationic** resin and  
 silica)

RN 292044-96-3 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
ethenylbenzene, ethyl 2-propenoate and 3-(trimethoxysilyl)propyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

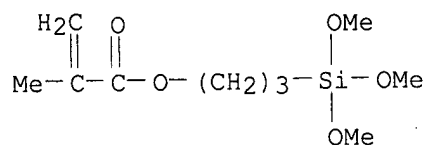
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2



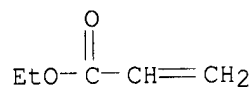
CM 2

CRN 2530-85-0  
CMF C10 H20 O5 Si



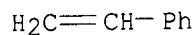
CM 3

CRN 140-88-5  
CMF C5 H8 O2



CM 4

CRN 100-42-5  
CMF C8 H8



IC ICM B41M005-00  
ICS B41J002-01; D21H019-32; D21H019-36; D21H027-00  
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other  
Reprographic Processes)  
Section cross-reference(s): 38  
IT Ink-jet recording sheets  
(paper; ink-jet printing paper contg. cationic  
resin and silica)

IT Paper  
Paper  
(printing, ink-jet; ink-jet printing paper **contg.**  
**cationic** resin and silica)

IT 134392-61-3P, Butyl acrylate-KBM 503-Light Ester DM-methyl methacrylate copolymer 211321-43-6P, Blemmer QA-butyl acrylate-KBM 503-methyl methacrylate copolymer **211321-44-7P**, Butyl acrylate-KBM 503-Light Ester DM-styrene copolymer  
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(ink-jet printing paper **contg.** **cationic** resin and silica)

IT 7631-86-9, Silica, uses 28474-62-6, Acrylamide-2-hydroxy-3-methacryloxypropyltrimethylammonium chloride copolymer **292044-96-3**, Ethyl acrylate-KBM 503-Light Ester DM-styrene copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(ink-jet printing paper **contg.** **cationic** resin and silica)

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2000:53326 Document No. 132:98189 Composition for the biocidal treatment of surfaces. Schoonbrood, Harold; Bergeron, Vance; Marchand, Jean-Pierre (Rhodia Chimie, Fr.). PCT Int. Appl. WO 2000002449 A1 20000120, 49 pp.  
DESIGNATED STATES: W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-EP5025 19990707. PRIORITY: US 1998-92124 19980709.

AB A process is given for the biocidal treatment of surfaces, by applying an aq. compn. **contg.** a hydrophobic biocide agent, a **surfactant**, and at least one water-sol. or water-dispersible org. copolymer, comprising at least one oligomeric or macromol. unit which can interact with the the biocide or with the micelles of **surfactant(s)** **contg.** the the biocide, and at least one hydrophilic macromol. unit which can interact with the surface to be treated and optionally with the said biocide. The copolymer in the biocidal compn. for the treatment of surfaces, acts as an agent for the vectorization and/or controlled release of the the biocide onto the surface to be treated. The compn. is usable for the treatment of hard surfaces, textiles, skin, hair, etc.

IT **254884-30-5**  
RL: MOA (Modifier or additive use); USES (Uses)  
(vehicle in biocide formulated for treatment of surfaces)

RN 254884-30-5 HCAPLUS

CN 1-Propanaminium, N,N-dimethyl-N-[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]-3-sulfo-, inner salt, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

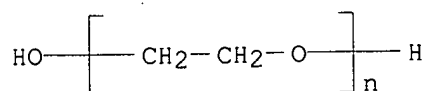
CM 1

CRN 25322-68-3

CMF (C2 H4 O)n H2 O

CCI PMS

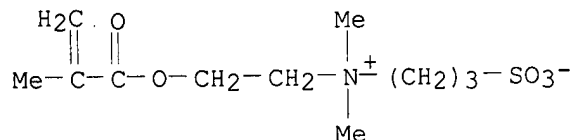




CM 2

CRN 3637-26-1

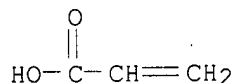
CMF C11 H21 N O5 S



CM 3

CRN 79-10-7

CMF C3 H4 O2



IC ICM A01N025-24

CC 63-8 (Pharmaceuticals)

Section cross-reference(s): 40, 62

ST biocide **formulation** surface **disinfection** cosmetics  
textileIT **Quaternary ammonium** compounds, biological studiesRL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)(alkylbenzyl dimethyl, chlorides; biocide formulated for treatment of  
surfaces)

IT Antibacterial agents

Biocides

**Disinfectants**(biocide **formulated** for treatment of surfaces)IT 109145-16-6 131723-69-8 207973-61-3 247573-79-1 **254884-30-5**  
254977-07-6 255041-64-6

RL: MOA (Modifier or additive use); USES (Uses)

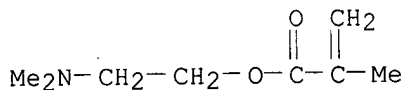
(vehicle in biocide formulated for treatment of surfaces)

L76 ANSWER 11 OF 54 HCAPLUS COPYRIGHT 2002 ACS

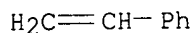
1999:752107 Document No. 132:4196 Neutralized paper and its production  
method. Kawano, Koji; Kira, Taro (Nippon Pmc K. K., Japan). Jpn. Kokai  
Tokkyo Koho JP 11323774 A2 19991126 Heisei, 7 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1998-134190 19980430.AB The paper, having good sized properties, is prepd. by treating paper with  
a surface agent of cationic starch and a hydrophobic polymer which  
**contains a cationic** group. Thus, a sizing agent for a  
neutralized paper was made from 100 g cationic starch and 1.5 g a reaction

product of epichlorohydrin and a copolymer of 18 parts  
N,N-dimethylaminopropylacrylamide and 69 parts styrene.  
IT 26222-39-9DP, N,N-Dimethylaminoethylmethacrylate-styrene  
copolymer, reaction product with epichlorohydrin, quaternized  
31668-05-0DP, Butyl acrylate-N,N-dimethylaminoethylmethacrylate-  
styrene copolymer, reaction product with epichlorohydrin, quaternized  
55972-61-7DP, N,N-Dimethylaminoethyl methacrylate-methyl  
methacrylate-styrene copolymer, reaction product with epichlorohydrin,  
quaternized  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(neutralized paper and its prodn. method)  
RN 26222-39-9 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
ethenylbenzene (9CI) (CA INDEX NAME)

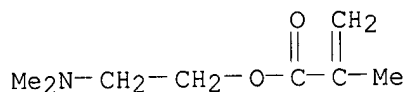
CM 1

CRN 2867-47-2  
CMF C8 H15 N O2

CM 2

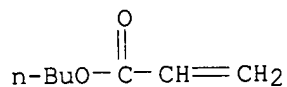
CRN 100-42-5  
CMF C8 H8RN 31668-05-0 HCAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2  
CMF C8 H15 N O2

CM 2

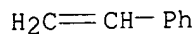
CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



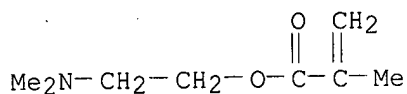
RN 55972-61-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

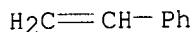
CMF C8 H15 N O2



CM 2

CRN 100-42-5

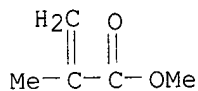
CMF C8 H8



CM 3

CRN 80-62-6

CMF C5 H8 O2



IC ICM D21H019-10

ICS D21H019-24

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

IT 106-89-8DP, Epichlorohydrin, reaction product with styrene and aminoacrylate, quaternized **26222-39-9DP**, N,N-Dimethylaminoethylmethacrylate-styrene copolymer, reaction product with epichlorohydrin, quaternized 28323-68-4DP, reaction product with

epichlorohydrin, quaternized **31668-05-0DP**, Butyl acrylate-N,N-dimethylaminoethylmethacrylate-styrene copolymer, reaction product with epichlorohydrin, quaternized **55972-61-7DP**, N,N-Dimethylaminoethyl methacrylate-methyl methacrylate-styrene copolymer, reaction product with epichlorohydrin, quaternized  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (neutralized paper and its prodn. method)

L76 ANSWER 14 OF 54 HCAPLUS COPYRIGHT 2002 ACS

1998:512690 Document No. 129:195783 Electrostatographic toner, developer containing the toner, and method for forming image. Koyama, Mikio; Hirose, Naohiro; Hayashi, Kenshi; Nishimori, Yoshiki; Kikuchi, Satoe (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 10213920 A2 19980811 Heisei, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-16654 19970130.

AB. The toner contains a copolymer comprising a hydrophobic monomer and an ionic monomer and an agent for improving of the fixing property. The agent, e.g., low-mol. polypropylene, is modified by a **cationic** group-contg. units, e.g., N,N-dimethylaminoethyl methacrylate, etc. The developer contg. the obtained toner and method for formation of an image by development of latent image on an electrophotog. photoconductor are also claimed. The residual toner on the photoconductor, after transferring of the developed image from the photoconductor, is removed by cleaning or the transferred toner image is fixed by heating in the method. The method using the toner and the developer shows quick and uniform charging, high endurance in repeated image forming, and improved transfer capability.

IT **31668-05-0P**, Butyl acrylate-N,N-dimethylaminoethyl methacrylate-styrene copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(electrostatog. toner contg. polymer comprising hydrophobic monomer and ionic monomer and agent modified by cationic group for improving fixing property)

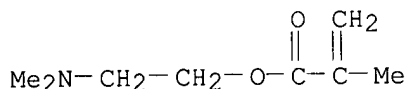
RN 31668-05-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with butyl 2-propenoate and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

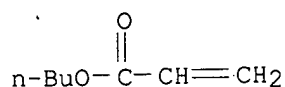
CMF C8 H15 N O2



CM 2

CRN 141-32-2

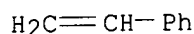
CMF C7 H12 O2



CM 3

CRN 100-42-5

CMF C8 H8



IC ICM G03G009-08

ICS G03G009-087; G03G009-09; G03G015-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **31668-05-0P**, Butyl acrylate-N,N-dimethylaminoethyl methacrylate-styrene copolymer 211738-13-5P, Butyl acrylate-styrene-vinylbenzyl-N,N-dimethyl-N-benzylammonium chloride copolymer 211738-61-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(electrostatog. toner contg. polymer comprising hydrophobic monomer and ionic monomer and agent modified by cationic group for improving fixing property)

L76 ANSWER 15 OF 54 HCAPLUS COPYRIGHT 2002 ACS

1997:499009 Document No. 127:177256 Thermoplastic polymer compositions

**containing** quaternary **cationic** group-**containing** polymers with good water resistance and lasting antistatic properties. Miyamoto, Akira; Nakazawa, Keiichi (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09188821 A2 19970722 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-50251 19960307. PRIORITY: JP 1995-291089 19951109.AB The title compns. contain thermoplastic polymers 99.8-50, anionic structural unit-contg. org. compds. 0.1-50, and quaternary **cationic** group-**contg.** polymers 0.1-50 parts. An injection-moldable compn. comprised Styron EXZ13 high-impact polystyrene 85, styrene-methacrylic acid copolymer (8.5 mol% methacrylic acid) 10, and poly(dimethylaminoethyl methacrylate) partially quaternized by di-Et sulfate 5 parts.IT **194151-43-4P**

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermoplastic polymer compns. **contg.** quaternary **cationic** group-**contg.** polymers with good water resistance and lasting antistatic properties)

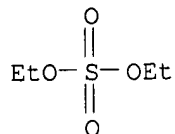
RN 194151-43-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethenylbenzene, compd. with diethyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 64-67-5

CMF C4 H10 O4 S



CM 2

CRN 26222-39-9

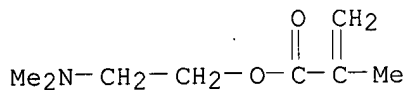
CMF (C8 H15 N O2 . C8 H8)x

CCI PMS

CM 3

CRN 2867-47-2

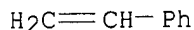
CMF C8 H15 N O2



CM 4

CRN 100-42-5

CMF C8 H8



IC' ICM C08L101-00

ICS C08L101-00; C08K005-00; C08K005-09; C08K005-42; C08L101-02

CC 37-6 (Plastics Manufacture and Processing)

IT Quaternary ammonium compounds, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
 (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)

(polymeric; thermoplastic polymer compns. **contg.** quaternary  
**cationic** group-**contg.** polymers with good water  
 resistance and lasting antistatic properties)

IT Antistatic agents

Water-resistant materials

(thermoplastic polymer compns. **contg.** quaternary  
**cationic** group-**contg.** polymers with good water  
 resistance and lasting antistatic properties)

IT Polymer blends

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
 (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)

(thermoplastic polymer compns. **contg.** quaternary  
**cationic** group-**contg.** polymers with good water  
 resistance and lasting antistatic properties)

IT Polyolefins

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(thermoplastic polymer compns. **contg.** quaternary  
**cationic** group-**contg.** polymers with good water  
resistance and lasting antistatic properties)

IT 106207-01-6P 121594-86-3P **194151-43-4P** 194151-47-8P  
194151-52-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)

(thermoplastic polymer compns. **contg.** quaternary  
**cationic** group-**contg.** polymers with good water  
resistance and lasting antistatic properties)

IT 9003-07-0, Shoallomer MA610H 9003-56-9, Stylac 220B 9010-77-9,  
Primacor 3340 9010-92-8, Methacrylic acid-styrene copolymer 9011-87-4,  
Delpet 80N 33970-45-5, Sodium methacrylate-styrene copolymer  
39307-76-1, Sodium styrenesulfonate-styrene copolymer 88527-62-2, AC316A  
182325-98-0, Styron EXZ 13

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)

(thermoplastic polymer compns. **contg.** quaternary  
**cationic** group-**contg.** polymers with good water  
resistance and lasting antistatic properties)

L76 ANSWER 16 OF 54 HCAPLUS COPYRIGHT 2002 ACS

1997:369743 Document No. 126:347149 Conditioning **shampoo**

compositions. Uchiyama, Hirotaka; Schroeder, John Gregory; Okuyama,  
Yoshinari (Procter & Gamble Company, USA). PCT Int. Appl. WO 9714396 A1  
19970424, 37 pp. DESIGNATED STATES: W: AU, BR, CA, CN, JP, KR, MX; RW:  
AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE.  
(English). CODEN: PIXXD2. APPLICATION: WO 1996-US16535 19961016.  
PRIORITY: US 1995-543778 19951016.

AB Stable conditioning **shampoo** compns. which both

**cleanse** and condition the hair comprise 5-50 wt.% deterative  
**surfactant**; 0.9-10 wt.% fatty compd. selected from fatty alcs.,  
fatty acids, and derivs. and mixts. thereof; 0.05-20 wt.% hair  
conditioning agent selected from nonvolatile dispersed silicones,  
hydrocarbons, water-sol. cationic polymers, cationic **surfactants**  
, and mixts. thereof; and water. Thus, a conditioning **shampoo**  
contained ammonium laureth-3 sulfate 12.0, ammonium lauryl sulfate 4.0,  
Polyquaternium-10 1.0, mineral oil 1.0, dimethicone 2.0, cetyl alc. 1.0,  
stearyl alc. 0.5, Na lauroyl sarcosinate 2.0, PEG 0.5, cocamide MEA 0.7,  
ethylene glycol distearate 1.6, fragrance 0.5, dimethylol-5,5-  
dimethylhydantoin 0.20, and water to 100%.

IT **53633-54-8**, Polyquaternium-11

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(conditioning **shampoo** compns.)

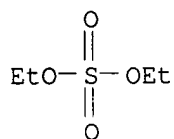
RN **53633-54-8** HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
1-ethenyl-2-pyrrolidinone, compd. with diethyl sulfate (9CI) (CA INDEX  
NAME)

CM 1

CRN 64-67-5

CMF C4 H10 O4 S



CM 2

CRN 30581-59-0

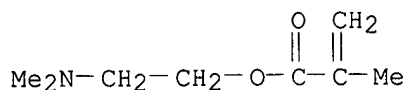
CMF (C8 H15 N O2 . C6 H9 N O) x

CCI PMS

CM 3

CRN 2867-47-2

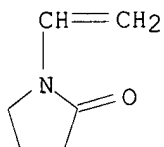
CMF C8 H15 N O2



CM 4

CRN 88-12-0

CMF C6 H9 N O



IC ICM A61K007-06

ICS A61K007-50

CC 62-3 (Essential Oils and Cosmetics)

ST conditioning **shampoo detergent** lipid silicone; fatty acid alc silicone conditioning **shampoo**; cationic polymer conditioning **shampoo**; hydrocarbon fatty acid alc conditioning **shampoo**

IT Amphoteric **surfactants**Anionic **surfactants**

Cationic polyelectrolytes

Cationic **surfactants**Conditioning **shampoos**Nonionic **surfactants**Zwitterionic **surfactants**(conditioning **shampoo** compns.)

IT Fatty acids, biological studies

Fatty alcohols

Hydrocarbons, biological studies

Paraffin oils

Polysiloxanes, biological studies



RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(conditioning **shampoo** compns.)

IT **Quaternary ammonium** compounds, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(dimethylditallow alkyl, chlorides; conditioning **shampoo** compns.)

IT **Quaternary ammonium** compounds, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(trimethyltallow alkylammonium chlorides; conditioning **shampoo** compns.)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 106-14-9, 12-Hydroxystearic acid 112-02-7, Cetyltrimethylammonium chloride 112-03-8, Stearyltrimethylammonium chloride 112-92-5, Stearyl alcohol 137-16-6, Sodium lauroyl sarcosinate 143-28-2, Oleyl alcohol 1812-53-9, Dicetyldimethylammonium chloride 2235-54-3, Ammonium lauryl sulfate 9003-11-6, Ethylene glycol/propylene glycol copolymer 9003-27-4, Polyisobutene 9003-29-6 9004-95-9, Ceteth-2 9005-00-9, Steareth-2 9006-65-9, Dimethicone 17301-53-0, Behenyltrimethylammonium chloride 25322-68-3, PEG 25322-69-4, Poly(propylene glycol) 26590-05-6, Polyquaternium-7 27458-93-1, Isostearyl alcohol 31566-31-1, Glycerol monostearate 31807-55-3, Isododecane 32612-48-9, Ammonium laureth-3 sulfate 36574-66-0D, N-cocoyl derivs. 36653-82-4, Cetyl alcohol **53633-54-8**, Polyquaternium-11 60908-77-2, Isohexadecane 81859-24-7, Polyquaternium-10

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(conditioning **shampoo** compns.)

L76 ANSWER 37 OF 54 HCAPLUS COPYRIGHT 2002 ACS

1991:45577 Document No. 114:45577 Acidic **disinfectant** all-purpose

**liquid cleaning composition**, especially for

removing **soap** scum and mineral deposits. Cook, William Jimmy;

Dixit, Nagaraj Shripad; Wisniewski, Karen Lee; Rao, Nandakumar Seshagiri

(Colgate-Palmolive Co., USA). Eur. Pat. Appl. EP 379256 A2 19900725, 13

pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU,

NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1990-200105 19900116.

PRIORITY: US 1989-297807 19890117.

AB The title compn. contains 0.5-4% mixt. of water-sol. and water-dispersible

nonionic **surfactants**, 3-7% lower aliph. mono- and/or

dicarboxylic acid, .gtoreq.0.1% antimicrobial compd., and 0-2% cationic or

anionic soil releasing agent, the balance being water, and has pH 2-4.

The compn. is esp. useful for cleaning **soap** scum and mineral

deposits from hard surfaces such as grout, ceramic tile, stainless steel

and glass in bathrooms and kitchens. A compn. contained 5.0% 11.6:57.5:27

adipic acid-glutaric acid-succinic acid mixt., 1.5% Neodol 91-8, 0.7%

Neodol 91-2.5, and 0.4% BTC 2125 M (50% benzalkonium chloride soln.), the

balance being water and NaOH (to give pH 2.5).

IT **26717-14-6**

RL: USES (Uses)

(**cleaners** contg., liq., **disinfecting**,

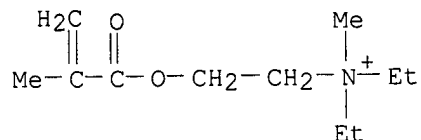
**soap** scum-removing)

RN 26717-14-6 HCAPLUS

CN Ethanaminium, N,N-diethyl-N-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, methyl sulfate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 48064-66-0  
CMF C11 H22 N O2



CM 2

CRN 21228-90-0  
CMF C H3 O4 S

Me-O-SO<sub>3</sub><sup>-</sup>

- IC ICM C11D001-825  
ICS C11D003-20; C11D003-48
- CC **46-6** (Surface Active Agents and Detergents)
- ST acid **cleaner disinfectant liq**; adipic acid **cleaner disinfectant**; glutaric acid **cleaner disinfectant**; succinic acid **cleaner disinfectant**; carboxylic acid **cleaner disinfectant**; **soap** scum remover **cleaner**; bathroom **cleaner disinfectant** acid; kitchen **cleaner disinfectant** acid
- IT Bactericides, Disinfectants, and Antiseptics  
(**cleaners** contg. acid and, liq., **soap** scum-removing)
- IT Alcohols, compounds  
RL: USES (Uses)  
(C9-11, ethoxylated, **cleaners** contg. acid and, liq., **disinfectant**-contg., **soap** scum-removing)
- IT **Quaternary ammonium** compounds, uses and miscellaneous  
RL: USES (Uses)  
(alkylbenzyl dimethyl, chlorides, disinfecting **cleaners** contg. acid and, liq., **soap** scum-removing)
- IT **Quaternary ammonium** compounds, uses and miscellaneous  
RL: USES (Uses)  
(benzyl-C12-16-alkyldimethyl, chlorides, disinfecting **cleaners** contg. acid and, liq., **soap** scum-removing)
- IT **Detergents**  
(**cleaning compns.**, liq., acid- and **disinfectant**-contg., **soap** scum-removing)
- IT Carboxylic acids, uses and miscellaneous  
RL: USES (Uses)  
(di-, aliph., **cleaners** contg., liq., **disinfecting**, **soap** scum-removing)
- IT 79-14-1, Hydroxyacetic acid, uses and miscellaneous 110-15-6,  
Butanedioic acid, uses and miscellaneous 110-94-1, Pentanedioic acid  
124-04-9, Hexanedioic acid, uses and miscellaneous 26717-14-6  
RL: USES (Uses)  
(**cleaners** contg., liq., **disinfecting**, **soap** scum-removing)
- IT 55-56-1

RL: USES (Uses)  
(disinfecting **cleaners** contg. acid and, liq., **soap**  
scum-removing)

L76 ANSWER 50 OF 54 HCAPLUS COPYRIGHT 2002 ACS

1980:587012 Document No. 93:187012 Polymer beads with uniform particle size.  
(Shinroihi K. K., Japan). Jpn. Kokai Tokkyo Koho JP 55080402 19800617  
Showa, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1978-137336  
19781109.

AB Polymer-contg. polymerizable liq. monomers are dispersed in H2O to form  
anionically or cationically charged particles with addnl. small amts. of  
anionic or cationic monomers, resp., and polymd. in the presence of a fine  
inorg. powder which is charged oppositely to the monomer particles to give  
polymer beads having uniform size distribution. Thus, a mixt. of  
colloidal silica 8, H2O 400, 2-dimethylaminoethyl methacrylate 0.8, Bz2O2  
1.2, Piccolastic A 5 180, and styrene 320 g was stirred at 100 rpm and  
heated 6 h at 90.degree. to give 40-50 .mu.-diam. copolymer [

**26222-39-9**] beads.

IT **26222-39-9P**

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manuf. of, by suspension polymn. in presence of colloidal silica, for  
uniform bead size)

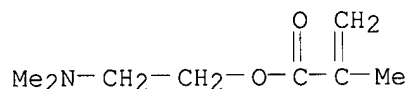
RN 26222-39-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with  
ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2

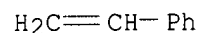
CMF C8 H15 N O2



CM 2

CRN 100-42-5

CMF C8 H8



IC C08F002-18; C08F002-44

CC 35-3 (Synthetic High Polymers)

IT Dispersing agents

(colloidal silica, for suspension polymn. of **cationic**  
monomer-**contg.** styrene)

IT Polymerization

(suspension, of **cationic** monomer-**contg.** styrene, in  
presence of colloidal silica, for uniform bead size)

IT 7631-86-9, uses and miscellaneous

RL: USES (Uses)

(colloidal, dispersing agents, for suspension polymn. of  
**cationic** monomer-**contg.** styrene)

IT **26222-39-9P**

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manuf. of, by suspension polymn. in presence of colloidal silica, for  
uniform bead size)